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THE MIGRANT

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DEVOTED TO TENNESSEE BIRDS

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SOCIETY

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1931

Vol. 2

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THE MIGRANT

VOL. II MARCH, 1931 NO. 1

Published quarterly by The Tennessee Ornithological Society, to record and encourage the study of birds in Tennessee. Correspondence for THE MIGRANT should be addressed to George B. Woodring, Editor, 1414 Stratton Avenue, Nashville, Tenn.

THE BLACK VULTURE—A BIRD OF THE SOUTH

By COMPTON CROOK, JR.

There is no better known bird in all our wide Southland than the Black Vulture, or Black Buzzard, as he is more commonly called. And yet, contradictorily, there is probably no bird so little known.

Let the reader recall any familiar landscape south of Virginia, and see if he can complete it without at least one Vulture wheeling in slow circles here in the blue sky. Probably he cannot. Without the bird the picture will be incomplete, unfinished.

The Black Vulture may almost be listed as a permanent resident in the Nashville region and Middle Tennessee. Almost, but not quite. For, while there are records of the bird for every month in the year, they are far from abundant for the midwinter season. Unless the month of January is unusually mild, the Vultures will disappear from over our hills for several weeks, having drifted southward to escape the more severe weather.

But not later than the second week in February they are back again, usually arriving before their well-known relatives, the Turkey Vultures. The Turkey, having a range extending much farther north than the Black, probably has a somewhat more definite migration, as the more venturesome of his race may nest as far north as New Jersey or New York.

The Black Vulture seems to pick out its nesting site early, regardless of the time the eggs are actually laid. This apparent tendency may be due to the fact that a pair will return year after year to the same nesting site, if they are not disturbed during the nesting season.

The earliest nesting date for the Nashville region is February 28; the latest date for a nest containing fresh eggs, May 4. But the time when the great majority of the birds are assuming home cares is the first two weeks in April. However, nests may be found throughout the month.

Disdaining the heights which his wonderful flying equipment allows him to conquer with such graceful ease, the Buzzard elects to nest near or on the ground. In the wooded ravines of Middle Tennessee a hollow stump, hollow log, or a low cavity in a standing tree is chosen. The writer has seen a nest in a cavity thirty feet from the ground, but this is unusual. Caves in the limestone escarpments along rivers and streams are also very common nesting sites in Middle Tennessee.

No nest is built; the two large bluish-white eggs, splotched with several shades of brown, being laid on the bare floor of the cavity or cave.

The Vulture, being a meat-eating bird that does not kill its own prey, is usually not very highly regarded because of that fact. And yet even the Bald Eagle is in times of stress a carrion eater.

The Vulture feeds its young by regurgitating partially digested food from its crop. But, should this seem repulsive, it must be remembered that the well-liked Mourning Dove and the tiny Ruby-throated Hummingbird feed by the same method.

It may be seen that a study of the habits of the Buzzard may well compare favorably in interest with a study of any other bird. Watch him as he rocks on his wings so high in the air as to appear little more than a speck against a cloud. His keen telescopic eyes are interpreting every detail of the landscape below him. Perhaps he is following with interest the course of a Turkey Vulture cruising low up and down the valleys. Should the Turkey find food, the Black will lose no time in dropping down for a share.

As this is written it is time for the Black Vulture to begin to nest. A pair of them in some great bare tree, going through their awkward, ridiculous courting antics, will furnish amusement and at the same time arouse speculation as to the possible location of the home site. By the time the nest is found the Vulture will no longer be considered the leper, the "unclean" of the bird world, but will have assumed his proper place as an interesting character in his own right.

Nashville. Tenn., March 1, 1931.

* * *

ABOUT NESTING BOXES

By A. F. GANIER

Much misdirected effort has been wasted in the incorrect construction and improper placing of nesting boxes for birds. A nest box should be, in design and situation, a close approximation of the cavity the bird would naturally find in the open. Such a site is usually a natural cavity or one excavated by a Woodpecker of Chickadee. Such cavities are usually in a dead or partly dead tree or in a post or pole, from which it is apparent that the usual situation is an open one, rather than under leafy shade. Open situations, too, are preferred because of protection from small Hawks that might be lurking near, and because in sunny situations the frequently damp cavities dry out more quickly after rains. With the above in mind it is a good rule to place practically all nest boxes on a post or pole, from seven to fifteen feet above the ground and neither too close to trees or to where people are in the habit of walking or working. Equally important is the matter of design. Most boxes are too large. Except for Martins, they should have but one compartment. A bird will balk at carrying double the ordinary amount of nest material in order to fill a big box, or to fill it up to the proper level. A Bluebird will not nest in a shallow box, nor will a Wren nest in a deep one. The blueprint plan accompanying this article shows the most successful style for the cavity nesting species named on the plan, for the reason that it approximates a cavity excavated by a Woodpecker. The removable top makes it easy to inspect and clean out as soon as the young leave. If Flickers or Owls are expected to use this box it should be provided with an inch of coarse sawdust.

The House Wren does not nest in Tennessee, but the more attractive Bewicks and Carolina Wrens takes its place. To attract them, nail a small box about twelve inches long, five inches wide and from five to seven inches deep on the back porch within four inches of the ceiling. The top should be entirely open. This box may be placed in an open shed or outbuilding and similarly located. A rafter plate in an outbuilding is acceptable to them, provided a short board or two is placed against the sides to hold the nest in place.

Another good Wren box is the "attic entrance type," shown in Farm Bulletin 609. since it combines privacy, compactness and cleanability. Wren boxes should be placed out of reach of children and cats. House Sparrows usurp many of our nest boxes and about the only way to keep them down is by the use of a small shotgun. The same treatment is recommended for stray cats, or else these prowlers may be trapped. In U. S. Farm Bulletin 1456, "Homes for Birds," will be found other plans and information.

HAWKS AND OWLS

By H. P. IJAMS

All huntsmen and most sportsmen will go out of their way to kill a bird of the Hawk or Owl family. It has been handed down that they are 'vermin' and that they destroy the game the hunters desire to kill. This is a mistaken idea, as the Hawk and Owl families, taken as a whole, are our friends and are highly beneficial birds. A bird is deemed beneficial or harmful according to its food habits. The larger and slower Hawks and Owls feed on field rats, mice, snakes, gophers, chipmunks and other enemies of the ground nesting game birds.

In Pennslyvania (and you can't talk long about good game laws without bringing in Pennsylvania) some years ago, to protect the game, they put a bounty on the heads of all Hawks and Owls. The rodents increased and the game decreased and the State soon found out its mistake. Special laws were passed to protect the beneficial Hawks and they made haste to import as many Hawks as they could get.

In south Georgia are some big hunting preserves owned by Northern capitalists who gave their wardens instructions to kill or trap the overabundant Marsh Hawks (the Marsh Hawk being a large, low-flying bird with a white patch on its rump). Then the Quail on the preserves began to decrease and the owners imported some Mexican Bob White, but to no avail. Finally, the owners chipped in and had the Government send an expert from the Biological Survey to conduct an investigation. His report was very simple—since the destruction of the Hawks the Cotton Rats and the Black Snakes had increased in such numbers that it was just impossible for any ground-nesting birds to hatch. Needless to say, the Marsh Hawks live in peace in that section now.

The outlaws of the Hawk family, which has put the whole tribe in bad, are the Goshawk, a Northern species that doesn't come here; the Sharp-shinned Hawk, which is too scarce to count; and the Coopers Hawk. The latter is the worst offender of all, and if the huntsmen could be sure of its identity it would be well to destroy it. But the chances are five to one that the huntsmen would kill one of the beneficial Hawks, as the Coopers Hawk, though rather common, is very shy and cunning and it is very seldom that one gets within shooting range. On the other hand, the good Hawks are rather sluggish and perch in exposed places.

The Coopers Hawk—"Chicken Hawk," or "Blue Darter," as it is sometimes called—is a medium-sized bird of bluish color. It has pointed wings and a rather long tail. It is swift in flight and likes the shelter of the woodlands.

The Hawks that should be protected are the Red-Tailed, Red-Shouldered, Marsh and Broad-Winged, which are all slower and larger than the Coopers Hawk, and our little Sparrow Hawk, which feeds largely on grasshoppers and mice.

The three species of large Owls in this section are the Great Horned, Barn and Barred. The Great Horned, or "Hoot Owl," is the outlaw of this group. His name will identify him, as he has "ears" or "horns". He is very destructive to wild life. Before you shoot, however, be sure to see his ears, as both the Barn Owl (sometimes called "monkey-faced") and the Barred Owl are highly beneficial. The status of our little Screech Owl is doubtful. He eats lots of mice and beetles, but is not averse to song birds. I would not want many at my place.

Remember, that in the good old days, when game was abundant, Hawks and Owls were even more abundant. So if you want to help the cause of conservation never kill a Hawk or Owl unless you are absolutely sure of its identity.

Knoxville, Tenn., February, 1931.

CHRISTMAS CENSUS—1930

	Nashville.	Memphis.	Knoxville.
Double-crested Cormorant	5	--	--
Mallard Duck	105	20	1
Black Duck	47	--	--
Lesser Scaup Duck	45	25	--
Ring-necked Duck	110	10	--
Old Squaw Duck	8	--	--
Coot	62	8	--
Wilson Snipe	2	11	--
Killdeer	12	3	2
Dove	1	3	4
Turkey Vulture	5	1	--
Black Vulture	2	1	--
Red-tailed Hawk	2	--	--
Sparrow Hawk	6	1	--
Great Horned Owl	1	--	1
Kingfisher	3	3	2
Hairy Woodpecker	5	5	1
Downy Woodpecker	10	16	8
Yellow Bellied Sapsucker	2	3	2
Pileated Woodpecker	4	--	2
Red-headed Woodpecker	18	13	--
Red-bellied Woodpecker	7	10	4
Flicker	43	60	7
Blue Jay	12	63	14
Crow	127	10	2,100
Starling	1,800	--	500
Cowbird	50	--	--
Meadow Lark	3	27	12
Bronzed Grackle	2,525	60	--
Purple Grackle	--	--	100
Purple Finch	4	--	--
Savannah Sparrow	5	--	--
Goldfinch	33	73	1
White-Crowned Sparrow	8	--	--
White-Throated Sparrow	73	500	52
Field Sparrow	77	5	39
Junco	267	275	130
Song Sparrow	69	120	28
Swamp Sparrow	3	--	--
Fox Sparrow	5	8	--
Towhee	62	15	23
Cardinal	23	80	14
Cedar Waxwing	20	35	--
Myrtle Warbler	10	60	6
Mockingbird	31	22	20
Carolina Wren	17	54	22
Bewick Wren	1	--	--
Winter Wren	10	12	3
White-breasted Nuthatch	2	3	19
Brown Creeper	3	14	1
Tufted Titmouse	18	44	13
Chickadee	25	35	55
Golden-crowned Kinglet	3	14	3
Hermit Thrush	3	11	1

Robin	22	--	1
Bluebird	31	35	6
Herring Gull	--	2	--
Ring-bill Gull	--	12	--
Bob White	--	25	62
Cooper's Hawk	--	1	--
Barred Owl	--	2	--
Phoebe	--	1	2
Red-winged Blackbird	--	300	--
Logger-head Shrike	--	3	--
Brown Thrasher	--	6	--
Sharp-shinned Hawk	--	--	1
Screech Owl	--	--	1
Ruby-crowned Kinglet	--	--	1
Pine Warbler	--	--	1
Totals	5,838	2,120	3,246
Species (70 in all)	56	51	42

Knoxville: John J. Hay, Brockway Crouch, Mary Beard, Earl Henry, H. P. Ijams.

Memphis: Scout Troop No. 1, B. B. Coffey, Jr., E. S. Henrick, W. A. Allen, Jr., Robert Reinert, George Reed.

Nashville: J. R. Baker, Compton Crook, Mrs. Sanford Duncan, A. F. Ganier, Dr. Wayland J. Hayes, Dr. and Mrs. George R. Mayfield, Harry Monk, Ernest Spain, Dr. H. S. Vaughn, George B. Woodring.

NESTING DATA ON MIDDLE TENNESSEE BIRDS

By VERNON SHARP, JR.

There are numerous fields of endeavor in connection with the study of bird life that might easily hold our attention and interest, varied though they are. Each phase is unique in its particular scope and appeals to us in a different manner. Many specialize with their songs; others are most keenly concerned with migration; while some delve deeply in a scientific research of their minute habits. Regardless of our specialty, we all have at least an inquisitive interest in their breeding and nesting peculiarities, and the purpose of this short article will be to list, with some systematic arrangement, the order of nesting our better known species. Those nesting, roughly speaking, after the middle of May will be discussed in the next issue of The Migrant.

Even though the cold blasts of winter are still in evidence the earliest of our Owls, the Great Horned, nested some weeks ago (about January 20), and now has young, which will be ready to fly before many of the warblers start their annual trek northward.

During the month of March there are only some half dozen birds that should be nesting. By March 4 the notorious Black Vulture has usually selected some hollow tree or rock cave in which to deposit her two beautiful eggs. As the middle of the month arrives the weird little Screech Owl, the wary Woodcock and the majestic Red-tailed Hawk have begun incubation, to be followed by the Killdeer and a true falcon of old, the Duck Hawk, in the closing stages of the month. Though the number of species for March is small no more interesting and varied selection could be imagined, with a nocturnal member, a carrion vulture, probably the outstanding of birds of prey, a rare game bird, and the noisy, well-known Killdeer. Pages could be written on each individual, but in so short a space only two of the outstanding thrills in the entire scheme of bird-life, to my mind, will be mentioned. First comes the mating flight and song of the Woodcock as he leaves the ground at twilight, after a series of dull, monotonous calls, flying in circles upward and upward with increasing rapidity and whistling wing beats, only to climax the performance with a series of clear notes before it makes a sudden drop for the earth, to repeat the concert for the attentive female on her nearby nest. Again, picture the Duck Hawk in his native haunts on some huge rock cliff overlooking a deep ravine as he leaves his lofty eyrie with nervous wing beats and spasmodic soaring along with a penetrating duck-like call. This very spectacle itself brings to mind those thrilling legends of the days of falconry.

To summarize rapidly those that nest in April with an appropriate average date, we find the Crow, April 2; Turkey Vulture, April 2-10; Mourning Dove, April 5; Tufted Titmouse, April 10; Carolina Chickadee, April 12; Bluebird, April 14; Red-winged Blackbird, April 20; Towee, April 14; Cardinal, April 14; Red-bellied Woodpecker, April 15; Phoebe, April 16; Black and White Warbler, April 22; White-breasted Nuthatch, April 18; Flicker, April 18; Field Sparrow. April 20; Hairy Woodpecker, April 15; Pileated Woodpecker, April 20; Bronzed Grackle, April 15; Carolina Wren, April 20; Bewick Wren, April 21; Kingfisher, April 22-26; Mockingbird, April 24; Blue Jay, April 25; Yellow Warbler, April 28; Barn Owl, April 28; Blue-grey Gnatcatcher, April 28; and lastly, Louisiana Water Thrush, April 28. Of this group one particularly interesting fact should be mentioned concerning the Mourning Dove. This quiet, unassuming member has been known to be either building, brooding or feeding young in nine months of the year—all except December, January and February. Let's sincerely hope that in the years to come our Legislatures will deem it expedient to delay the open season on this beautiful bird for at least four weeks, to afford an opportunity for the young to develop fully.

As May arrives we can expect a new specie to start nesting most every day. In tabulated form these would be included: Sparrow Hawk, May 1; Cooper's Hawk, May 2; Bachman Sparrow, May 2; Rough-winged Swallow, May 3; White-eyed Vireo, May 3; Migrant Shrike, May 3; Parula Warbler, May 5; Brown Thrasher, May 5; Maryland Yellow-throat, May 5; Barn Swallow, May 6; Cowbird, May 2-15; Bob White, May 7; Red-eyed Vireo, May 8; Prothonotary Warbler, May 9; Wood Thrush, May 10; Meadow Lark, May 10; Baltimore Oriole May 10; Chipping Sparrow, May 11; Red-head Woodpecker, May 13; Catbird, May 13; Chuck-Wills-Widow, May 15; Downy Woodpecker, May 15; Warbling Vireo, May 15; Orchard Oriole, May 16; and Yellow-throated Vireo, May 16. In this varied assortment we will find a great many examples of architectural beauty in nest construction. For example, the Blue-Gray Gnatcatcher, with its delicate bowl, is a magnificent creation, or the Parula Warbler, with its nest suspended in the long usnea moss of our uplands. There's the graceful Barn Swallow, which makes a nest of mud plastered on a beam and lined with snow-white feathers. On the other hand, it is hard to visualize more unique designs than those of our Orioles, the Vireos or our earlier Warblers.

These nesting dates are only given as an indicator and cannot be followed except as a guide, as individual pairs may vary greatly from the typical. An early warm spell, a prolonged winter and a destroyed first set are a few of the factors causing these irregularities. Again, successive seasons may be typically early, and, from weather conditions to date, we may expect a rather early nesting period during the spring of 1931.

THE ROUND TABLE

Since the Great Horned Owl is the earliest of our birds to begin its nesting, it is in order that its likeness grace our cover page at this season. The drawing is copied from Audubon and, to one who really knows this "tiger among the birds" in its forest haunts, it seems the best likeness that has ever been drawn. At such times it is the personification of alertness and presents a far different appearance than the captives we see slouching in the zoos.

H. P. Ijams, our East Tennessee Vice-President, writes that on January the third a Golden Eagle was captured alive in Monroe County and brought to Knoxville. It had gotten tangled in a barbed wire fence during a snowstorm; we suspect some wily Brer Rabbit lured him into the meshes.

Messrs. Ganier, Mayfield, McGill and Shaver attended the meeting of the Wilson Ornithological Club at Cleveland, Ohio, during the week following Christmas. A pretty good delegation, considering the distance. President Ganier returned via Washington, where he spent two days at the United States Biological Survey looking over such data as they had on Tennessee birds. He reports that there was hardly a State represented by such meager data as is ours.

Snowy O~~i~~wl Visitors: Several records of this species (Nyctea nyctea) have been reported during the past winter in Tennessee. One was captured at Reelfoot Lake on December 3 and sent to Nashville, where it was mounted by Edgar McNish. Another was shot near Johnson City on December 31 and sent to Knoxville, where it was seen by H. P. Ijams. From the Memphis area B. B. Coffey, Jr., reports two records of this owl. One was taken at Paris, Tenn., on December 22 and the other at Como, Miss., forty miles south of Memphis, on December 19. Both specimens were examined by him. The unusual visitation of this boreal species is possibly due to a scarcity of rodents in the North, caused by the excessive drouth of last summer. An earlier record in our Curator's file is that of a specimen shot near Paris, Tenn., on February 3, 1918, a foot having been sent to him for identification.

Our near neighbor, "The Kentucky Warbler," the organ of the Kentucky Ornithological Society, lists a very large number of species seen during Christmas week. The records that they make are very nearly interchangeable with our own. This publication carries the up-to-date bird news of our sister State.

SPRING FIELD DAYS: Sunday, May 17, has been tentatively set as the date for this annual and always enjoyable affair, and it is hoped that a number of our members from a distance can arrange to attend. For those who just can't wait that long it is probable that we shall have a preliminary, a sort of "warming up" affair, say on April 19. This "preliminary" is a rain or shine, mud or dust proposition, so only the hardiest hikers should count on it.

MEETINGS: Well attended meetings have been held this year, bi-weekly, on January 5, 19, February 2, 16 and March 2. Future meetings are scheduled for March 16, 30, April 13, 27, May 11, 25, and into June. If you are missing these meetings, you are missing a treat. A feature paper, round table field notes, and important discussions make each of them well worth while. Meetings are at Peabody College, main building, at 8 p. m.

Mr. Harry P. Ijams, Vice-President at Knoxville, announces that the Annual Spring Census for East Tennessee will be held at his "Island Home" farm on April 26, 1931. He is expecting a large delegation from the T. O. S. to help him.

LIST OF MEMBERS

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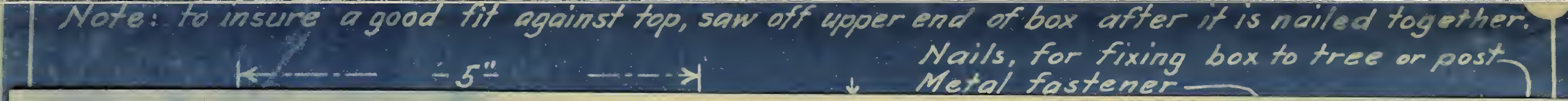
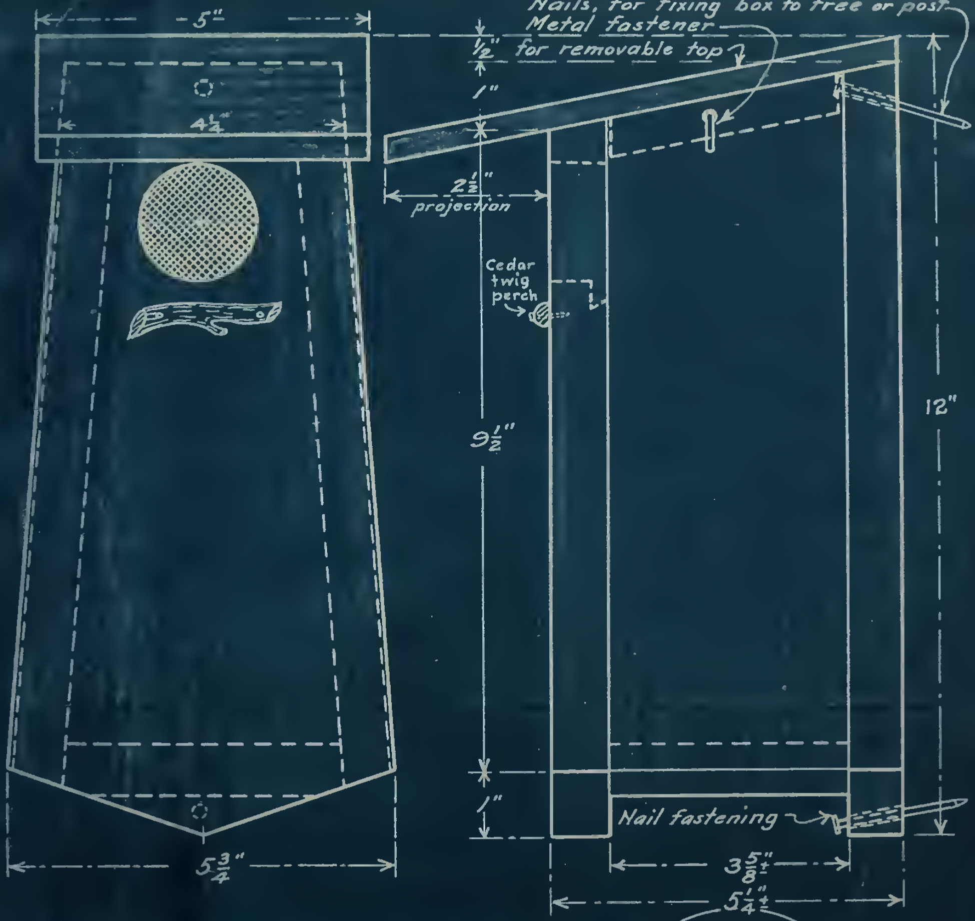
OUT OF NASHVILLE

*H. P. Ijams, Island Home Pike, Knoxville, Tenn.; *Brockway Crouch, care Flowercraft, Knoxville; S. A. Ogden, care Fidelity Trust Co., Knoxville; John Bamberg, Knoxville; *Ben B. Coffey, 1434 Bank of Commerce Bldg., Memphis; *Mrs. Ben B. Coffey, 1434 Bank of Commerce Bldg., Memphis; Troop No. 1 Boy Scouts, Memphis; J. S. Scott, Dyersburg, Tenn.; *Prof. Wyman R. Green, University of Chattanooga, Chattanooga; J. B. Treanor, Craggie Hope, Tenn.; *Prof. J. A. Robins, The Robins School, McKenzie, Tenn.; *Dan R. Gray, Box 152, Mt. Pleasant, Tenn.; *Miss Margaret Stacker, Cumberland City, Tenn.; *Miss Etta Wagstaff, Lynnville, Tenn.; *Mrs. Nancy Lee Morgan, Oaklee, Columbia, Tenn.; *Dr. R. W. Rutledge, Tennessee Polytechnical Institute, Cookeville, Tenn.; Prof. George Davis, Teachers College, Murfreesboro, Tenn.; Oscar Russell, Gallatin, Tenn.; L. H. Hammond, Box 261, Mt. Pleasant, Tenn.; *Glenn W. Bell, The Berry Schools, Mt. Berry, Ga.; Mrs. Minnie G. Samuel, 1098 Patton Street, Memphis; *Miss Marjorie R. Ross, 422 Eddy Street, Ithaca, N. Y.; Dixon Merritt, Lebanon, Tenn.; Paul Adams, Alpine, Tenn.; Mrs. J. M. Ransom, Tullahoma, Tenn.; Floyd Brailliar, Madison, Tenn.; *H. E. Wheeler, care Public Museum, Birmingham, Ala.; Miss Mary Walker, Hopkinsville, Ky.; *G. D. Hibbs, Cox Creek, Ky.; Miss Mary Davant, 1402 Herbert Street, Memphis; Mrs. R. F. Smith, 679 Mansfield Street, Memphis; Miss Mamie M. Dyer, Byington, Tenn.; *H. B. Rainey, care Capper Engraving Co., Knoxville; Miss Elizabeth Sterry, State Normal School, San Marcos, Texas; Prof. Gordon Wilson, 1434 Chestnut Street, Bowling Green, Ky.; Edward M. Ray, R. F. D. No. 4, Fredonia, Ky.; Dr. T. Atchison Frazier, Marion, Ky.; A. L. Brown, Greeneville, Tenn.

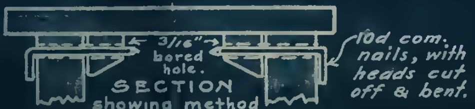
Note: Active members are denoted thus *; not thus designated denotes associate members.


Note: to insure a good fit against top, saw off upper end of box after it is nailed together.
5"
Nails, for fixing box to tree or post
Metal fastener

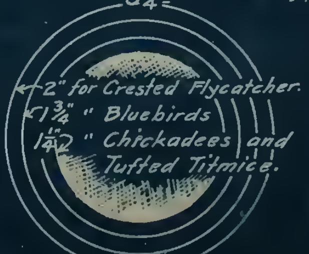
Note: to insure a good fit against top, saw off upper end of box after it is nailed together.

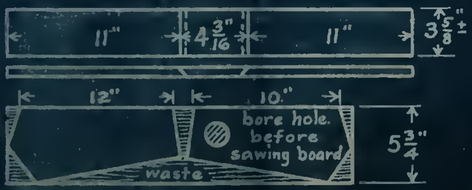

Nails, for fixing box to tree or post
Metal fastener
½" for removable top
5"
4¼"
1"
2½" projection
Cedar twig perch
9½"
12"
1"
Nail fastening
5¾"
3⅝±
5¼±

Boxes should receive 2 or 3 coats of paint, brown preferred.
Holes are to be bored with expansive bit, before sawing to prevent splitting.


3/16" bored hole.
10d com. nails, with heads cut off & bent.

SECTION showing method of fastening removable top.


2" for Crested Flycatcher.
1¾" " Bluebirds
1½" " Chickadees and Tufted Titmice.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Division of Birds

THE MIGRANT

A QUARTERLY JOURNAL
DEVOTED TO TENNESSEE BIRDS

Published by
THE TENNESSEE
ORNITHOLOGICAL
SOCIETY —

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NATIONAL MUSEUM

**JUNE
1931**

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THE MIGRANT

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SUMMER WARBLERS OF SHELBY COUNTY

By BEN B. COFFEY, JR.

If one's study has been carried on chiefly in the two wooded parks of Memphis he would immediately think of the Kentucky and the Hooded Warblers. The student who has skirted the borders of Wolf River, Horn Lake, and various bayous would think of the Prothonotary Warbler. And in more open situations we find the Maryland Yellow-throat. These four, to my mind, are the outstanding beauties which spend the summer with us, although we can find the Redstart if we know where to look.

The Kentucky and Hooded Warblers are always associated together in my thoughts of them. Preferring the same ravine and heavily shaded hillside environments, with a similar liquid quality of tone in their song notes, and with the same colors predominating, this would only be natural. Reed's Bird Guide does not do full justice to the bright yellow underparts of either, and the black crown and ear coverts of the former and black hood of the latter gives a brilliant contrast. The Kentucky Warbler is the Overton Park warbler; in the spring its loud, clear "ron-dee, ron-dee, ron-dee" is heard throughout the park woods morning and evening. It is more common throughout the country than the Hooded Warbler and may be found in most damp ravines and wooded creek bottoms. The Hooded Warbler is the Riverside Park warbler, and is very common near the stream course there. Its interrogative "come and see me" is of a liquid tone.

Along Wolf River, Nonconnah Creek, Horn Lake and bayous we find, usually without much delay, the Prothonotary Warbler. The old name of Golden Swamp Warbler is more appropriate, and my Scouts and I call it the "tweet-tweet" bird. Certainly no other bird's notes are as similar to the popular printed conception of a bird's song. The loud, clear, ringing "tweet-tweet-tweet-tweet" attracts instant attention, but when the singer is located its beauty eclipses the vernal freshness of its song. Another song, not so loud, heard in the same localities would cause field glasses to be turned toward the tops of tall cypresses to hunt for the Sycamore Warbler, bearing the yellow throat and black flank streaks. Occasionally he is found in sycamores, the trees that he is more often associated with around Nashville or Hardy (Arkansas), and on two separate trips I heard one at the edge of Piney Woods. half a mile from type environment.

The Louisiana Water-Thrush is often found along our streams with the Kentucky or Hooded Warblers. I have a picture taken May 18, 1928, of four young in a nest found under tree roots at the Raleigh-Wolf River beach, within three feet of a path in continual use by swimmers and picnickers. It has a beautiful wild-spirited song and can be easily recognized by its habit of continually flirting its tail. (Only the Spotted Sandpiper (uncommon) and Palm Warbler (migrant) do likewise.)

The Redstart has been found to be quite common throughout the summer in the wooded bottom lands of the Mississippi itself, west of the Y. & M. V. R. R., south of town, and from the line of bluffs to the river, north of town. "La Candelita" is not seen elsewhere except during migration, when it is very common. The Parula Warbler is found in the same character of environment, but its territory seems to include similar localities throughout the country. During the summer of 1928 one was my "unknown warbler" of Piney Woods. I might add here that this warbler is very common in Overton Park during early fall. The Black and White Warbler is found in late summer in the Redstart's territory, but these may only be migrants.

The Maryland Yellow-throat and Yellow-breasted Chat are found in open country, with thickets. The former, with its "witch-ee-ty, witch-ee-ty, witch-ee-ty," is very common and frequently nests in the bushes of one's gardens. An inquisitive and peppy little body, this black-masked summer resident should be easy for anyone to know. The Chat is our largest warbler, very shy, and hard to see in its rural haunts, but always found on any trip into likely territory through its ventriloquial, mimicking song, with which he leads you a merry chase. A sight record rewards patience.

We have no summer records of the Cerulean Warbler or Worm-eating Warbler. Nor of the Yellow Warbler, Blue-winged Warbler, Prairie Warbler; these three are found at the Memphis Scout camps (Hardy, Ark.), the first two in the willows along Spring River and the third on the dry scrub oak hillsides. I heard and saw a Prairie Warbler April 26, 1930, at Camp Currier, twenty miles south of town, in Mississippi. The environment was typical; however, I was unable to return for further records.

The Pine Warbler would be accidental. Records for Piney Woods range from March 11 to June 3, 1928.

Because of the history connected with the two "lost species," Bachman Warbler and Swainson Warbler, a search for them is doubly interesting. Some day we hope to find the former. We have found the latter. A pretty liquid "wee-er, wee-er, chee-wee-er" sent me in search of the singer one April morning (23rd) and a careful study of the little brown bird that I found, caused me to go to Reed's Guide at once to make sure of it. It was found in these low damp woods on several succeeding mornings, and once two singers were seen. Last spring my first record was for April 20th, and as late as May, I went out in the evening and listened to it sing almost continuously for twenty to thirty minutes. Its song resembles one of the songs of the Hooded Warbler, and care is needed if identification is made by song. I didn't have the chance to return later or hunt for a nest. Only a male bird apparently was seen, yet I believe we will find a nest some spring soon. I have heard the song of the Swainson Warbler in several other places with similar small cane growth and wet ground, and have one other sight record, on the Y. & M. V. near Horn Lake.

The study of the Warblers is very fascinating and leads us into some beautiful spots. Most of the summer Warblers are easily learned because of their markings and length of stay with us. The common ones can be studied without undue strain on the neck such as we experience during migration, with the exception of the Parula, and once one of these came down to drink almost at my feet. Little creatures, vague and unknown in our ignorance, become delightful intimates with a little study and a little adventure.

Memphis, Tenn., Feb. 19, 1931.

NESTING DATA ON MIDDLE TENNESSEE BIRDS

PART II.

By VERNON SHARP, JR.

In May our bird-life activities attain their greatest impetus. Not only is this the time to follow our most numerous, varied, and interesting migrants, but also we are privileged to hear a most fascinating group of resident species with us. In the last edition of "The Migrant" an account was presented of those native birds which nest before May 15th, roughly speaking.

As the middle of the month arrives our colorful Warbler friends seek out their favored sites and begin brooding. Among these are the Kentucky Warbler, Hooded Warbler, Sycamore Warbler and Prairie Warbler, soon to be followed by the Pine Warbler, Blue-winged Warbler and Redstart. No more diverse a selection could be chosen from a standpoint of nest locality. Several, by their name, suggest the probable site, as we find the Prairie in rather open meadows, with a limited amount of scrubby trees and bushes; again the Sycamore frequents the outer branches of the smooth-surfaced sycamore, where a most delicate cup-shaped nest, consisting of the finest vegetable fibers, is placed. As a home the Kentucky Warbler selects a clump of bushes and places her nest of leaves and roots on the ground. Usually an open woodland on a rising hillside suggests the haunts of the Hooded Warbler, for it is here that her nest is located in some upright fork several feet from the ground. As would be expected, the Pine Warbler locates her home on the outer branches of a horizontal pine limb, while the Redstart is rather partial to situations along little streams, where her nest is placed fifteen to thirty feet above the ground.

The regal Kingbird builds about May 15th. 'Tis true that this bird deserves the implication, regal, in view of its appearance, actions and lofty nesting site in the topmost branches of some skyward tree. At this date two of our most different Hawks, the Sharp-shinned and Broad-winged, start incubation. The former is a wary, rapid-flying individual which nests in the pine forests, while the latter is exceedingly tame, more sociable and preferring the large forks of an oak or chestnut.

Summing up those of the last ten days of May, we should expect the following: Nighthawk, May 20th; Crested Flycatcher, May 20th; Scarlet Tanager, May 20th; Least Bittern, May 22nd; Whippoorwill, May 25th; Summer Tanager, May 25th; Dickcissel, May 25th; Indigo Bunting, May 25th; Grasshopper Sparrow, May 28th, and last, and from a standpoint of size only, least, the fascinating little Ruby-throated Hummingbird. Each of these birds have numerous facts concerning their breeding habits that are exceedingly unique, but in so limited a space only two will be noted. The Crested Flycatcher, which nests in a bird box or a hollow limb cavity, invariably includes a snake skin in the composition of its nest. There has been considerable comment and speculation upon this fact, but so far as the author knows, there is no record of a nest when this has not been true. No article on this subject could scarcely by written without some special reference to our minute friend, the Ruby-throated Hummingbird. Once her nest has been completed it is a most difficult task to detect it, but during the building period, by listening for their faint note, the home site can be located. And here may be seen one of the most inspiring construction undertakings imaginable. Very fine fibers, down, lichen and cobwebs are used, and, once completed, it is the most delicate structure of all bird life.

During the weeks at this season we expect to find many birds, which first laid weeks earlier, in progress on their second brood. These second nests generaly have sets of probably one less egg than those of the first brood. Some species have as many as four nests a season, and these come at any time from the first of May to September 15.

June 1 finds a rapid decrease in the species nesting for their first time. However, among these the following will be found: Yellow-billed Cuckoo, June 1; Chimney Swift, June 1; Wood Pewee, June 2; Acadian Flycatcher, June 2; Gallinules, June 20, Coot June 20, and the Least Tern June 20. One of the most remarkable circumstances is that of the Goldfinch, as this bird is with us the entire year, but doesn't begin nesting until after July 20, and extending after the first of September.

Nashville, Tenn., May 9, 1931.

* * *

THE MOCKINGBIRD

By EMILY BARRY WALKER

Our Mockingbird, Mimus polyglottos polyglottos (Linn), is a member of a distinctively American family. Among the many novelties which the discovery of this part of the Western continent first brought into notice, we may reckon that of the Mockingbird. Most of the sixty-odd species of the family are restricted to the tropics, only eleven being found north of Mexico. Some twenty species are Mockingbirds, many of which they say are as talented as ours, although we may be considered quite correct if we doubt this statement.

The Mockingbird of the Southern States is truly celebrated, ranking foremost in the extent and vareity of his vocal powers. A permanent resident in the State of Tennessee, he may be found in the city or in the country, along busy streets or in quiet lanes and by-ways, as well as in the wooded areas. Very few are the days through the entire year when, snuggling down in his feathers, he assumes a grouchy attitude and refuses to sing. All the fall he continues his song and on into the winter he breaks forth from time to time. Only the coldest days can hush that magic voice. Throughout October and November his song is the earliest of all the awakening songs of the birds. As spring approaches his manner as well as his song seems to change; a quiet ecstasy pervades him. Mounted on the top of a tall bush or half-grown tree, his song rises pre-eminent over all the springtime songsters. He imitates with marvelous exactness, for what bird student has not been caught by his clever treatment of some favorite bird song and been quickly set aright by the swift change to some other well known melody. The magic of a medley so varied and yet so harmonious can scarcely be conceived. As the season advances he seems unable by a mere vocal medium to give vent to the ecstasy that so enthralls his very being. Alexander Wilson has described it thus: "He mounts and descends as his song swells or dies away; he bounds aloft with the celerity of an arrow, as if to recover or recall his very soul, expired in the last elevated strain." Now the day is not long enough and far into the night, when the moon is shining, the air is fairly vibrant with his unsurpassed music. Only a few short hours and he is up facing the rising sun, ready to greet the new day.

Mockingbirds feed for the most part on vegetable food. Fruit and berries, some seeds and now and then an insect, make up his diet. They seem to have territories throughout most of the year, and these are apparently decided on by the amount of food available. During the fall they feed in flocks on such food as the Southern buckthorn berries. The fruit of a buckthorn contains a stone the size of a cherry, but the bird eats the berry, fruit, stone and all, at one bite. When a territory is once chosen he faithfully abides in the locality, picking out a particular bush or tree and seldom going very far away. Other birds are quickly driven away from his private grounds, and he assumed a quarrelsome attitude in connection with it. In this territory take place all the acts of the little drama of his life. His mating, his flight song, the nest building, the rearing of the young, and the long drowsy autumn days. The nest is made of coarse twigs, weed stalks, etc., and lined with rootlets. The height varies with locality as well as the position of the nesting site. The nests have been found in brush heaps, hackberry trees, Osage-orange trees, trumpet vines and, in fact, almost any bush or tree available. The nest is always guarded with the utmost care. Often its presence is detected by the fierce disapproval of the parent to an apparent intruder. The spotted, bluish-green or greenish-blue eggs, four to six in number, are often deserted on apparently slight provocation. The young are spotted below, making them seem all the more akin to their little cousins, the Brown Thrashers.

The Mockingbird has the power to charm the eye as well as the ear. Not striking or gaudy in appearance, the quiet, subdued colors seem in good taste. Wilson describes him thus: "His expanded wings and tail, glistening with white, and the buoyant gaiety of his action, arrest the eye as his song most irresistibly the ear. The ease, elegance and rapidity of his movements, the animation of his eye, and the intelligence he displays in listening and laying up lessons from almost every species of the feathered creation within his hearing, are really surprising, and mark the peculiarity of his genius."

There are many more things that can be learned by closer study and observation of this magnificent bird. Let us cherish, guard and watch this bird, which may be found throughout the entire state of Tennessee.

Nashville, Tenn., May 7, 1931.

* * *

Officers of the T. O. S. for 1930-31 are as follows: A. F. Ganier, President; H. P. Ijams, Knoxville, B. B. Coffey, Jr., Memphis, and Wayland Hayes, Nashville, Vice-Presidents; Compton Crook, 2207 Leslie Avenue, Nashville, Secretary; H. C. Monk, Nashville, Curator; George Woodring, Nashville, Editor; Vera Kearby, Nashville, Assistant Editor. The next election will be held in May.

THE ROUND TABLE

The first of two Spring Field Days was held on April 26 at "Cabin-croft," the home of Mr. Dixon Merritt, seven miles south of Lebanon. Clear, cool weather and a picturesque setting among the high green hills made the day all that could be wished for, for tramping and bird listing. Some sixty-three species were recorded and nests of several of these were also found.

Mr. Merritt, who is one of our four charter members, assisted by Mrs. Merritt, served buffet luncheon on the lawn and porch of the ancestral log farmhouse. The twenty-five who made the trip are hoping for another invitation there in the not too distant future.

A report from our Memphis chapter gives us the results of two field trips. One, on April 19, to Wolf River bottoms, about twenty-five miles east of Memphis. Mr. Ben Coffey and Troops Nos. 1 and 50, composed the party. They report the Swainson Warbler seen for the first time; also Rusty Blackbirds, Herring and Ring-billed Gulls on the river at Memphis. There were also Red-shouldered and Sharp-shinned Hawk reported on this trip.

The second trip was just below Memphis, on May 3. Mr. Coffey reports as seen for the first time this season the Bobolink, Dickcissel, Chat May 2, Prairie Warbler, Chuck-Wills-Widow, and Blue Grosbeak. A grand total of sixty-nine species for the day, as follows: Bluebird, Bob White, Bobolink, Red-winged Blackbird, Indigo Bunting, Cardinal, Yellow-breasted Chat, Carolina Chickadee, Cowbird, Crow, Morning Dove, Dickcissel, Flicker, Crested Flycatcher, Goldfinch, Blue-gray Gnatcatcher, Bronzed Grackle, Rose-breasted Grosbeak, Ruby-throated Hummingbird, Red-shouldered Hawk, Blue Jay, Kildeer, Kingbird, Kingfisher, Meadow Lark, Mockingbird, Nighthawk, Baltimore Oriole, Orchard Oriole, Wood Pewee, Robin, Bachman's Sparrow, Field Sparrow, White-throated Sparrow, Barn Swallow, Rough-winged Swallow, Chimney-swift, Summer Tanager, Tufted Titmouse, Brown Thrasher, Olive-backed Thrush, Wood Thrush, Louisiana Water Thrush, Towhee, Red-eyed Vireo, White-eyed Vireo, Yellow-throated Vireo, Cedar Waxwing, Chuck-wills-widow, Downy Woodpecker, Red-headed Woodpecker, Red-bellied Woodpecker, Carolina Wren, Black Vulture, Turkey Vulture, Blue Grosbeak, and Black and White, Blackpoll, Black-throated Green, Hooded, Kentucky, Maryland Yellow-throat, N. Parula, Palm, Redstart, Sycamore, Tennessee, Prothonotary and Prairie Warblers.

GRAY-CHEEKED THRUSH IN WINTER: Mr. W. E. Saunders, of London, Canada, passed through Nashville en route to Jackson the latter part of February and renewed an old acquaintance with Mr. Ganier. Mr. Saunders is a Fellow of the A. O. U., having become a member in 1883, and is one of the most proficient ornithologists in the country. This statement is made to pave the way for a very unusual winter record in the way of a Gray-cheeked Thrush, which our visitor found near Jackson on February 22. It had been suggested to Mr. Saunders by letter that possibly his bird was a Hermit Thrush, but he writes in reply: "I was quite right about the Grey-cheek. It was not more than twenty-five feet away and I had the glasses on it. At first I said Olive-backed, as I always do at home, where this species is common and the Grey-cheek is rare, but just then it turned its head and there was no trace of buffy on the head or throat. I am too old a field man to be unable to differentiate between these two species."

IMPRESSIONS OF A VISITOR: In order that he may share his love of nature with his fellow-citizens, Mr. Saunders contributes a weekly column to the London paper, and upon returning from his trip he wrote up some impressions of our state. It is always of interest to hear how nature's aspect in this latitude impresses a visitor from a Northern clime, so we print below that part of his write-up which deals with birds:

"Our destination was Jackson, Tenn., where we arrived on Feb. 21st, and stayed for two days. We were of course most deeply interested in the birds, but there was little that differed from the Ontario fauna. The Carolina Chickadee is like our own, but a trifle smaller and with a little different voice. The Tufted Titmouse is a large Chickadee, with a uniform slate color and with a neat little crest. His Oriole call was heard a number of times, and once a pair of them came to the roadside and chattered and played for a moment before flying away. Those were the only two species that we do not regularly see in Ontario. The most conspicuous and one of the most abundant birds was the Cardinal, which was in full song, and the woods rang with his varied melodies. The Carolina Wren, with a whistle quite similar, was often heard. He makes more noise for his size and is perhaps nicer music and none too easily distinguished from that of the Cardinal.

"A special feature of the bird world is, of course, the Turkey Vulture, which was seen every day as we drove along, sometimes as many as five together, sailing around with no apparent object, but doubtless with eyes open to the possibilities of locating food.

"Among small birds, the notable sparrows were those of our own fields, the Song and Field Sparrows being most common. The Chewink (Towhee) was heard at almost every stop in the country, and we also found the White-throated, White-crowned and Swamp Sparrows. The Mockingbird, unfortunately, had not yet begun to sing, and we were disappointed to miss that outstanding treat to the Northern bird-lover."

Two outstanding meetings of the past spring were those held on the evenings of March 16th and March 30th. On the former date the Society met with Misses Hollinger and French at Ward-Belmont College at the Del Ver Club house on the campus. The beautiful assembly room, cheered by a rousing log fire, made the setting ideal, and the large number who attended had a most pleasant evening. Preceding the Round Table discussions, Miss Susan Towles, of Henderson, Ky., gave a talk on Audubon and particularly of his life at Henderson, on the Ohio. She brought with her a number of the one hundred original prints, owned by Henderson, of the first elephant folio edition of Audubon's Birds of America, these being hung on the walls to enable careful inspection. These plates, printed and hand-colored in England, proved a rare treat for those who delight in the technique of perfect reproduction.

On March 30th the meeting was held in honor of Sir William Hardy, who is delivering a series of lectures at Vanderbilt University. Since Sir William expressed the wish to see how our meetings were conducted rather than to be heard himself, the program was devoted to summing up the results of our activities during the past sixteen years. Four charter members and five past presidents were present, the former being Messrs. Dixon Merritt, A. C. Webb, A. F. Ganier and George R. Mayfield. Brief talks by each of the above members was followed by a review of the story of the finding of the nesting grounds of the Blue Goose, given by Miss Vera Kearby. Sir William was then presented with a souvenir of the meeting, and he responded by giving a most interesting talk on his experiences with some British birds.

IOWA BIRD-LIFE, published quarterly by the Iowa Ornithological Union, and edited by Mr. Fred J. Pierce, Winthrop, Iowa, is an outstanding journal on the bird-life of the Middle West States. The March number opens with an interesting account by E. D. Nauman of the Birds of Early Iowa. The author takes the reader back to the days of the Passenger Pigeons and Wild Turkeys. Dr. F. L. R. Roberts writes on "Our Vanishing Birds of Prey." "Field Notes" contains various records of rare and unusual occurrences. The Christmas census was outstanding by the fact of a compiled list of fifty-three species. This is a good record for an inland territory. Under the title of "Membership News" is covered the personalities of the Union. We are always glad to read a publication like Iowa Bird-Life, because it means another link in the fast welding chain of bird conservation. G. B. W.

NEW MEMBERS

Mrs. A. L. Applegate, 208 Lamar, Memphis; Miss Sue Ammerman, Cynthiana, Ky.; Miss Lillian Bayer, Thomas High School, Cumberland City; Miss Mary Beard, 406 E. Fifth Avenue, Knoxville; Miss Georgia Broward, Box 325, Peabody College, Nashville; Miss Phoebe Clark, Madison; Cecil Crawford, 1267 Faxon, Memphis; Miss Bess E. Dalton, 782 Peabody College, Nashville; Miss Margaret Fain, City Librarian, Dandridge; Mrs. Goddard, care Dandridge Banner, Dandridge; F. M. Jones, P. O. Box No. 44, Bristol, Va.; Prof. Jas. L. Major, Thomas High School, Cumberland City; Mrs. Henry Marius, 1180 Edgewood Avenue, Knoxville; Miss Ada Maxwell, 507 E. Fifth Avenue, Knoxville; Miss Eloise McCorkle, Western State Teachers' College, Consolidated Training School, Portage, Mich.; Geo. M. Moulder, Superintendent of City Parks, Nashville; Eugene Odum, Chapel Hill, N. C.; James W. Ogier, Observatory Drive, Nashville; George Parkins, 2720 East Moreland Boulevard, Toledo, Ohio; Miss Mildred Poole, care Girl Scouts Headquarters, Memphis; Miss Ethel Purcell, 587 Moreland Avenue, N. E. Atlanta, Ga.; Bailey Rascoe, 2113 Westwood Avenue, Nashville; W. E. Saunders, 352 Clarence Street, London, Ontario, Canada; Ed Schreiber, Tennessee Industrial School, Nashville; Mrs. J. S. Scott, 424 Market Street, Dyersburg; Miss Frances Sinclair, 2525 West Linden Avenue, Nashville; Claudius Smith, 1414 Gartland Avenue, Nashville; Miss Margaret Sullivan, 2803 Blair Boulevard, Nashville; Miss Valerie Staples, 206 South Third Street, Pulaski; Mrs. Thomas, West Dormitory, Peabody College, Nashville; A. L. Walker, Porter-Walker Hardware Co., Columbia; J. P. Warnock, 132 North Main Street, Mt. Pleasant; Mrs. Lois L. Wells, 414 Fairfax Avenue, Nashville; Joe Young West, care Peabody College, Nashville; Miss Charlotte Wilkins, 1713 Primrose Avenue, Nashville; Miss Martha Willford, 190 South Cox Street, Memphis; Miss Billie York, Sommerset, Ky.; Gerald Capers, 2203 Union Avenue, Memphis; Robert Carter, 2087 Lee Place, Memphis; Miss Jaqueline Hall, 25 North Watkins Street, Memphis; Willard Hayes, Bank of Commerce Building, Memphis; Mrs. E. T. Hendrix, Route 1, Hernando Road, Memphis; Arnold Houston, Collierville; Dr. and Mrs. O. W. Hyman, 437 Stonewall, Memphis; Mrs. Lee D. Jones, 534 South McLean Street, Memphis; Miss Jennie S. May, 1521 McLemore Street, Memphis; Dr. C. E. Moore and Mrs. Amy Weedon Moore, 631 Hunter Street, Memphis; and Miss Virginia Rogers, 765 Polk Street, Memphis.

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THE MIGRANT

A QUARTERLY JOURNAL
DEVOTED TO TENNESSEE BIRDS

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THE MIGRANT

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FIELD NOTES ON THE SPARROWS OF TENNESSEE

By GEORGE R. MAYFIELD

During migration and in the summer season the warblers challenge the bird observer to his best efforts. The hope of seeing a new warbler or one of the rarer species keeps him ever on the alert at these times, and the measure of his skill can usually be taken from his list of warblers. But there is another family of birds that offers almost as great an incentive to field work in winter as the warblers do from April to October, and it is the aim of this article to arouse a greater interest in the less spectacular but equally important group—the sparrows of Tennessee.

There are sixteen species of the Fringillidae listed already for the Volunteer State and two or three more species are yet to be found and recorded. Many otherwise good observers throw up their hands in despair and say that the sparrows are too difficult for them and thus this family of birds fails to receive the attention rightly due a group of birds that come second only to the warblers in number. And so, the writer will endeavor in this article to give some practical observations of his own and mention some field marks that will enable even beginners to more easily identify them.

The Field Sparrow is the one species which is found the year round throughout the state. He is a lover of hedges, of thickets and even the open field, if a few patches of briers or buckbush are to be found for cover. His sweet, plaintive song can be heard almost every month in the year, and his nesting season extends from early April to late August. His call is a plaintive "cheep," easily mastered, and his abundance, summer and winter, make him an easy mark for beginners.

The Chipping Sparrow is with us from March through October. He prefers yards, gardens and parks. His song is a poor specimen of music, but his persistent attempts at melody make him a most welcome guest around every home. The field mark is a chestnut crown with a lighter line below, and this in turn bordered by a black line through the eye. The young are not so easily identified, but all of them have a sharp chip which is not difficult to master.

In a contest for the world's sweetest singer among birds, the Bachman Sparrow would receive many enthusiastic votes. Only the Wood Thrush, in my estimation, surpasses him in depth of soul and sweetness of melody. This bird arrives about April the first and sings regularly until July. A knowledge of his song will reveal his presence often where he has not been reported. Open pastures with thick grass and low trees are his preference. Finding his nest is the acid test of patience and skill, for it is built on the ground in the thick grass and arched over like that of a Bob-white. Possibly this is done to conceal the eggs, which, unlike those of any other sparrow, are pure white and without markings. A Field Sparrow in appearance, but without a pinkish bill, is a good mark for recognizing this species in the field.

The Grasshopper Sparrow gets his name from the trilling insect-like song of this sparrow. His companions in clover and high grass are Meadow Larks, Red-wings, Dickcissels and Bobolinks. No wonder his insignificant notes are usually overlooked. Even when heard by a novice, the sound will be attributed to some insect and passed up. The author's veracity has been doubted more often in connection with this bird than any other; due to the bird's elusiveness, the writer has almost been dubbed a nature faker. A blackish crown with central stripe and a yellow mark in front of the eye helps to identify this bird even when he is silent.

The Lark Sparrow is one of our least-known sparrows; only a few records, which have been made at widely-varied intervals and widely-separated localities (Bellemeade golf links, Hendersonville, Kingston Springs and Old Jefferson) over a period of fifteen years, tell the story of his rareness. Nearly all of these records are of migrating birds, in August. Large, handsome, melodious in voice, and easily recognized, he is the bird we should like to substitute for that "little rat of the air," the House Sparrow. Should you see in the open fields a large sparrow with white outer tail feathers and white and chestnut marks on the crown and cheeks, you can count that day a fortunate one in your bird calendar.

After naming the one permanent resident and four summer residents and transient sparrows, a more careful survey of the entire state may change our records to some extent, and any information as to the various species of sparrows will be greatly appreciated. Many of the statements made about the following birds are based on limited observations and are subject to revision at any time.

Present records show that the White-throated Sparrow ranks next to the Field Sparrow in abundance—in some places he is found in even greater numbers. He arrives about the twelfth of October and some stay as late as mid-May. Bright winter days and even dark ones, are made quite cheerful by his vibrant "Peabody. Peabody, Peabody" song. A chorus of many White-throats at eventide makes music which any choir might envy. These birds like thickets and tangles and dense hedges; still they are friendly and approachable. Their white throats, large size and characteristic calls make them very easy to identify.

Next to the White-throat comes the Song Sparrow. Strictly speaking, he could be classed as a permanent resident of Tennessee, since he nests in East Tennessee in considerable numbers and over extensive areas. But for practical purposes he is a winter resident and is so regarded by most of us. These birds are usually found along gullies and streams bordered with plenty of briars and weeds. They come by twos and threes generally, but by following up a narrow stream one may corral a real flock. Arrival in Middle Tennessee is in early October and departure is late March and early April. His presence over the United States, from the Atlantic to the Pacific and from Canada to the Gulf, makes him the sparrow universal. The best field mark is a black shield in the middle of a gray breast streaked with dark brown lines. His flight is marked by a jerky, pumping sort of movement and his calls are readily learned.

The White-crowned Sparrow may be distinguished from the White-throated by virtue of the fact that the former has no white markings at the throat. The heads of the White-crowned look as if they were bandaged conspicuously with white cotton batting held in place by black tape. He loves old fence rows and gullies lined with briers and thorn bushes. His song is rather a poor effort, but sounds quite welcome to the admirer of this handsome, proud-looking sparrow. These birds have a vigorous chip which should be learned along with those of the Chipping, the Field, the Song, the White-throat and the Swamp Sparrow. They are all characteristic and aid in locating species which would otherwise be passed by.

The Savannah Sparrow is generally found in grassy fields and damp cut-over meadows. They stay in flocks, but fly as individuals. In fact, they run as long as possible before taking flight. A gray breast streaked with black, without the shield in the center, is a good field mark. There is a streak of yellow before the eye and at the bend of the wing. From October to April they are to be found in the open fields, but no observer need listen for a chip or a song. They must be flushed and followed for identification.

Swamp Sparrows are well-named, since they frequent swamps and marshes, where they slip along like some small water animal, from leaf to leaf or stick to stick. They are very quiet and fairly tame, until frightened. They have black and dark brown colors to match the shadows of the marsh and a whitish throat and unmarked breast. Their song is a kind of chatter and clatter like those of the Marsh Wrens. with which he is so fitly associated. These birds would appear on field lists more often if observers knew their chirps and were willing to follow them into their damp haunts.

Vesper Sparrows love the roadsides, where posts and rails and wires give them a chance to watch the world go by. Late March and early April is the time to watch for a fairly large sparrow with white outer tail feathers. The Lark Sparrow and the Junco also have this field mark, but are so different in other ways that there should be no trouble in separating the three species. Their songs are quite musical and are frequently united to make up an attractive chorus. Strange to say. fall records are extremely rare. The Vesper breeds in the extreme northeastern part of the state.

Fox Sparrows are so named because they bear the tawny color of the Red Fox. They resemble thrushes very much, but the more reddish cast and stronger beak reveal him as one of the fringillidae. Swamps, damp ravines and brier patches appeal to them for winter quarters. They can be found in flocks varying in number from 3 to 30, but usually only 2 or 3 are seen together. A flock of them can make a valley vibrant with melodies that remind one of a chorus of Purple Finches. They also have a loud "cluck" like the scold of a Thrasher.

The Lincoln Sparrow, too, has very few records to his credit. Some ten days after the Song Sparrow has gone North, one should be on the lookout for a bird in the same localities and with similar markings except that the shield at the center of breast is lacking. By May 1 they, too, are gone and fall records are limited to one. His song and chirp I do not know, as he is always silent when I see him, slipping in and out of the undergrowth to prevent a good observation. A closer watch should be kept for this elusive species.

Our smallest sparrow is the Leconte's, and we have less than half a dozen records of this species. It passes through in autumn and again in spring, and may be found in open grassy fields such as are preferred by the Savannah. It is mouse-like in its actions and hard to flush, always alighting again on the ground after a short flight. It has a buffy cast of plumage with unmarked breast.

The Tree Sparrow winters regularly in Kentucky, but is extremely rare in Tennessee. Only in severe winters does he come to our more hospitable climate. Due to his mingling with Field Sparrows and Juncos. the Tree Sparrow might be easily overlooked. Field notes show that he has always been found when weeds and grasses are heavy with snow, and no record has been made of chirp or song. Those field workers who love to tramp in heavy snows have a good chance to make bird history by giving the Tennessee Ornithological Society more data on this sparrow, so regularly found in latitudes just north of Tennessee. Though larger, he much resembles the Field Sparrow and a chestnut spot right in the center of an unmarked breast is the unfailing sign for recognition.

And finally, fame, if not fortune, awaits that observer who can locate with certainty the Henslow and the Nelson Sparrows. They are due to be here, but skeptics will have to be converted by the believing student before their status can be fixed as one of the growing list of Tennessee birds.

Nashville, Tenn., September, 1931.

* * *

NESTING HABITS OF THE PARULA WARBLER

By F. M. JONES

Accounts of the nesting of the Parula Warbler (Compsothlypis amer. pusilla) have but rarely described nests built other than within bunches of tillandsia (Spanish) or usnea (grey-beard) moss. In this mountainous section, the nests I have found are constructed within thick clusters of green hemlock needles and the nest material, comprised chiefly of usnea moss, is brought in and tucked among the hemlock twigs and foliage to complete the domicile. Data is given below on several nests found in Sullivan County, Tennessee, south of Bristol. Other nests, found in Virginia northward from Bristol, were similar in location and construction.

"June 1, 1923, Sullivan County, Tennessee.—Along the road near Jackob's School on Jackob's Creek. Nest containing four fresh eggs in large hemlock thirty feet up and near the extremity of a small limb eight feet from the body of the tree. Nest suspended by and woven in the small twigs and needles. Twigs partly woven over the top with opening to the nest on the side. The material of the nest, apart from the hemlock foliage, was composed of usnea with two or three pieces of grass woven in the nest and a few horse hairs in the interior. The nest proper could not be seen from the ground, as it was entirely concealed by the hemlock needles which formed the outside of the nest. The tree was in an open situation, ten feet from the highway and forty feet from the creek. Bird was on nest when found. Eggs measured 61x46, 62x46, 59x46.

"June 9, 1923—Same locality as above nest, but about two hundred feet farther down stream. Nest with three eggs, apparently about ready to hatch, suspended from the twigs of a horizontal limb of large hemlock tree, 65 feet up and 12 feet out, at the extremity of the limb. Found by climbing the tree. Another nest found along the creek further down on June 15, by watching the birds feed the young, at which task both male and female birds were engaged. This nest visited again on the 27th, after the young had left; one sterile egg remaining. Nest about 50 feet up and 6 feet out from body of the tree.

"June 26, 1931, Sullivan County, Tennessee, Jackob's Creek.—Nest containing three eggs, incubated four days; within six feet of the top of a large hemlock, 85 feet up, and built near the extremity of a small limb eight feet from the body of the tree. Woven to and suspended from small twigs, mostly on one side of the nest. Composed of usnea with a small amount of fine round grasses, a few horse hairs in lining and spider cocoons stretched and woven throughout the nest. Exterior measurements of nest, 2½x2½ inches. Interior 1⅞ inches wide by 1¼ inches deep. Eggs white, with a wreath of fine reddish chestnut specks around the larger ends and with a few specks over the entire surface. Measured: 65x48, 65x47, 65x47. Nest found on the 15th by seeing bird carrying nesting material. Remained on nest when visited until touched by my hand. These warblers are very close sitters.

"Several other nests found in same locality also in Johnson and Carter Counties. All were in hemlock trees situated in and woven to the down-drooping twigs and needles, usually to an inner limb near the extremity and the distance from the ground varying from 30 feet (the only one found that low) to 95 feet, and, with the exception of one nest, none of them could be seen until after climbing the tree, and very often they were hard to see then, as the moss blended perfectly with the hemlock foliage which formed the outer portion of the nest. The construction of the nests as a whole were oblong rather than round, and about the size of Vireos' nests, but were woven to the twigs instead of being suspended from them as the Vireos' nests are."

The birds return to the same place each season, as I saw them in every locality visited each succeeding year, including the present one. They are local in distribution, however, and will only be found in certain places.

Bristol, Va., August, 1931.

* * *

ALONG THE MISSISSIPPI IN AUGUST AND SEPTEMBER

By BEN B. COFFEY, JR.

Certain larger water birds become common in the Memphis area in late summer and early fall, and there is also a large shore-bird migration along the Mississippi during August. The American Egret and the Little Blue Heron are found in flocks on the river and larger lakes, while scattered individuals are often found along creeks and the smaller bodies of water. Some years we are fortunate enough to see flocks of Wood Ibis, the American representative of the stork family, and occasionally a White Pelican with his odd pouched beak. The Great Blue Heron (probably the sub-species Ward's Heron) present throughout the year, is also to be seen, but in numbers far too few.

The American Egret and the immature Little Blue Heron are almost without exception called "White Cranes" here and throughout the country; a mistake made alike by the sportsman impressed by their apparently large size and snowy whiteness and by the native hunter or guide familiar with them enough to be interested. One author suggests that the misnomer is due to the influence of the Japanese decorations on our imported articles; perhaps childhood tales of foreign origin play their part also. Some observers are not aware of the great difference in size of these two separate herons; the Egret is 41 inches from tip of the bill to the tip of the tail, while the Little Blue is but 22 inches. Others think that the latter are the young of "White Cranes." When the birds are first encountered for the season it is often difficult to estimate size without thoughtful observation. After that, a correct estimate of the size will identify the specimen, as any similar white bird is rare here. The Egret is pure white except legs and feet, which are black; the bill is mainly yellow. The immature Little Blue is white with touches of bluish on primaries or outer wing feathers, greenish-yellow legs and bill mainly black. The similar Snowy Heron, which some day may stage a comeback, so that they will again visit this section, has legs and bill mainly black and toes yellow. The adult Little Blue Heron is larger and more slimly built than the Little Green Heron or "Shite-poke," and has a maroon, rather than a chestnut neck. The immature Little Blues acquire the slate-blue color the second winter and third spring, and by the next spring complete the adult plumage with a maroon neck.

My record of these two for 1928 starts with an Egret in a flooded cotton field at Lakeview, on Lake Cormorant, July 8. Then followed my trips across islands and chutes to Middle Bar, five miles above Memphis, to study Least Tern nests. On July 31, there were four immature Little Blues and on August 2. thirteen; on the fifth I counted 70 immature and 11 adults (blue, two or three-year-old birds). On the afternoon of September 15, two scouts and I saw about 120 immature and one adult Little Blues and about 25 Egrets, all frequenting small ponds or gathering to roost in the tops of willows on an island. A small number were seen the next day. On my last trip, September 22, I saw about 45 to 50 immature Little Blues and 18 to 20 Egrets. In 1929 many trips were made up the Mississippi, but the number seen was somewhat less than the summer previous. Both in 1929 and 1930 my trips did not continue late enough to see the usual flocks, and as the Least Terns nested early again this year, all my river trips were in June. On July 19, about six or eight Egrets were seen on Horn Lake.

Because the Egret and immature Little Blue Herons are so often reported as "White Cranes," it may be well to give here the status of the real cranes, none of which, by the way, have I been able to record locally. In North America this family is represented by the Whooping Crane, the Sandhill Crane and a subspecies of the latter from Alaska, the Little Brown Crane. The Whooping Crane is our largest wading bird, and, as distinguished from the Egret, is very much larger, its whitish plumage is broken by the black color of the primary wing feathers, and, like all cranes, it flies with its neck extended like that of a goose. It is now so rare that it is practically a relic of the past and is one of the only three diminishing species that cannot even be collected for museum exhibition. The Sandhill Crane is mostly light brown in color, is smaller than the Whooping Crane, but larger and more trimly proportioned than the Great Blue Heron. The Little Brown Crane is a counterpart of the Sandhill, but is only about three-fourths its size. These Cranes, which were formerly common in all of our prairie states, are now making their last stand in the far Northwest and they have become so rare that it is probable they may never again be recorded in this state.

The Wood Ibis, or Gourd-head, is an odd-looking stork-like bird, white with greenish black tail and outer wing feathers and bare (unfeathered) head and neck. It is approximately the size of the Egret, but in flight does not carry the head drawn close to the breast as herons do. They nest along the Gulf Coast and in late summer move northward in an irregular fashion. Personal records are: September 15, 1928, twelve, and the 16th, fifteen, near Middle Bar. On July 28, 1929, a flock of about 110 were seen gracefully wheeling and soaring at a height of about 400 feet above Middle Bar. A few came down lower over the mud flat and slough, but after a few minutes the whole flock moved off to the northeast.

The White Pelican is also a large white bird with black outer wing feathers, but its immense size and pouch-like beak distinguishes it from all other denizens of the river. Yet, fishermen who mentioned seeing flocks of white birds with black wing tips were unable to describe them, so that I could know whether they were Pelicans or Wood Ibis. A few men knew the two apart. The Pelican probably migrates from the western interior of the continent through this section and doubtless a few occur here regularly. My only record was made on September 15, 1928, one being seen on a mud flat at Middle Bar. It was discovered at night when attracted by the beam of a flashlight.

Large numbers of shore-birds are found on the mud flats and edges of the sand bars, up until about August 15. I shrink from listing the species—identification of these "peeps" and "snipe" is an ordeal, particularly in their drab fall plumage. However, I might say the Solitary, the Least and the Semi-palmated Sandpipers are very common, and Semi-palmated Plovers and Yellowlegs are regularly seen. No picture of the "Father of the Waters" here is complete without mention of the graceful Least Tern or "Sea Swallow," as it is sometimes called. On sizzling hot days when the dry sandbars take on the appearance of the Sahara, the cheerful tinkling call of small flocks of these little birds may be heard as they glean their fill of "skip-jacks" from the turbulent, muddy waters. In August they are joined by transient flocks of Black Terns and before many weeks they have both allowed themselves to become towed along, as it were, to the Gulf, where they make their winter home.

Favored here with a good location for the study of water birds, perhaps we can make sufficient land and water field trips to better our acquaintance with this interesting division of our bird life.

Memphis, Tennessee, August, 1931.

ANNUAL SPRING FIELD DAY

On May 17, the Annual Spring Field Day of the T. O. S. was held at Sycamore, in Cheatham County, twenty miles northwest of Nashville. In attendance it brought out a record crowd, there being about fifty people on hand, mostly members. Among those present from a distance were Mr. and Mrs. H. P. Ijams and Mr. and Mrs. John Bamberg of Knoxville, Mr. and Mrs. Ben B. Coffey and three members of Scout Troop No. 1 of Memphis, Miss Margaret Stacker, Miss Lillian Bayer and Prof. H. C. Major of Cumberland City. On arriving at the chosen site the group separated into parties and made a census of the surrounding area. In the afternoon a lesser excursion was undertaken, which included the finding of a number of Woodcock in a spring branch and a Bob White's nest with eggs nearby. The total list for the day numbered 75 species; regrettably, it cannot be published with this, for lack of space. After an excellent luncheon, cooked in the open and served under the sycamores, retiring President Ganier called for the annual election of officers. This resulted in the election of Harry P. Ijams of Knoxville, president; Messrs. Ben B. Coffey, Jr., of Memphis, Wayland J. Hayes of Nashville, and John Bamberg of Knoxville were elected vice-presidents. Other officers elected were Miss Vera Kearby, secretary; Compton Crook, treasurer; Albert F. Ganier, curator. and George B. Woodring, editor.

We hope to have an article in the December number on the winter feeding of birds. Do not await that time, however, before getting your feeding shelf in operation, lest your winter birds pass you by for a more hospitable home.

The Fall Field Day will be held as usual, some time in October, near Nashville. Arrange to attend and meet others who share your interest in birds. The first fall meeting at Nashville will be on Monday, September 21st, at 8 p. m., at the Social Religious Building, Peabody College.

THE ROUND TABLE

FIELD NOTES FROM MEMPHIS: On May 31st, a dozen members of the Memphis section of the T. O. S. had a field day at Horn Lake, on the Mississippi line. Nearly sixty species were listed, among which were a flock of 120 Least Tern and a Bachman Sparrow in song. On May 6, an Anhinga, or "Snake Bird," was taken at Turrell, Ark., twenty miles north of Memphis; it spoiled before it could be preserved by a taxidermist. but I have the tail feathers. During June I visited the nesting colony of Least Tern on Middle Bar, above Memphis (See Wilson Bulletin, June, 1930, pp. 103-7), from two to five times a week. Due to low water this year, the first egg was laid about May 31st, when the riger gauge read 13 feet. The eggs were laid every other day generally. two or three comprising a set. The Terns apparently rely on the sun to assist them in the task of incubation. They "fish" about four miles down the river, at the foot of Mud Island, returning to the bar about 7 p. m. to roost. H. C. Monk of Nashville visited this colony with me on June 7th. By the middle of June, flocks of Purple Martins were noted on the river. Not more than 75 were in a flock, but later these flocks became very large Eight Black Terns were noted on June 8th, probably going North. One or two wild Mallards were noted, with young, in June; by July, in spite of rains, most of the sloughs had dried up. On June 27th, at Reelfoot Lake, I made a good list of birds, including about 25 Egrets and 20 Cormorants. Prothonotary Warblers were much in evidence. In July, a trip to the Arkansas bottoms showed the usual list, including Chats and Dickcissels, with young. On August 2nd, I made a trip to Grassy Lake, Tenn., 12 miles north of Memphis. The lessee reported several "White Cranes," probably Egrets; two Fish Crows were noted on this lake, being identified by their drawling call note. B. B. Coffey, Jr., Memphis, Tenn.

This is assuredly a state-wide number. Messrs. Jones' and Coffey's notes were taken 450 miles apart.

Under date of August 12th, Mr. G. P. Dillon of Erin writes: "We have a pair of Mockingbirds which have started their third nest for the season. I have not tried to examine the contents because I have known these birds to desert their nest after people had looked into them. Also, we have a Bob White sitting on twelve eggs in one of our pea patches, at the present time."

The Knoxville Chapter, T. O. S., held a Field Day on May 9, as a feature of the meeting there of the Tennessee Academy of Science. The time was spent at the Island Home Bird Preserve of H. P. Ijams, where, in addition to making a bird census, the visitors were shown nesting boxes, feeding stations, traps and other paraphernalia for bird banding. A detailed map of the preserve has been prepared and each year a copy of it is marked up to show the location and dates of all nests found in the area, thus keeping a running record of the nesting activities and probable number of young raised.

Mrs. Arch Cochran, Mrs. Fred C. Laskey and Mrs. Sanford Duncan of Nashville are actively engaged in trapping and bird banding. They are very enthusiastic over this method of bird study, and we hope to hear from them in these columns before long. Our president-elect, Harry P. Ijams of Knoxville, has been an active bander for a number of years. Prof. Wyman R. Greene of Chattanooga, who specializes in banding Chimney Swifts, is expecting to continue his work this fall. A number of others of our members hold banding permits, but we have not heard from them.

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THE MIGRANT

A QUARTERLY JOURNAL
DEVOTED TO TENNESSEE BIRDS

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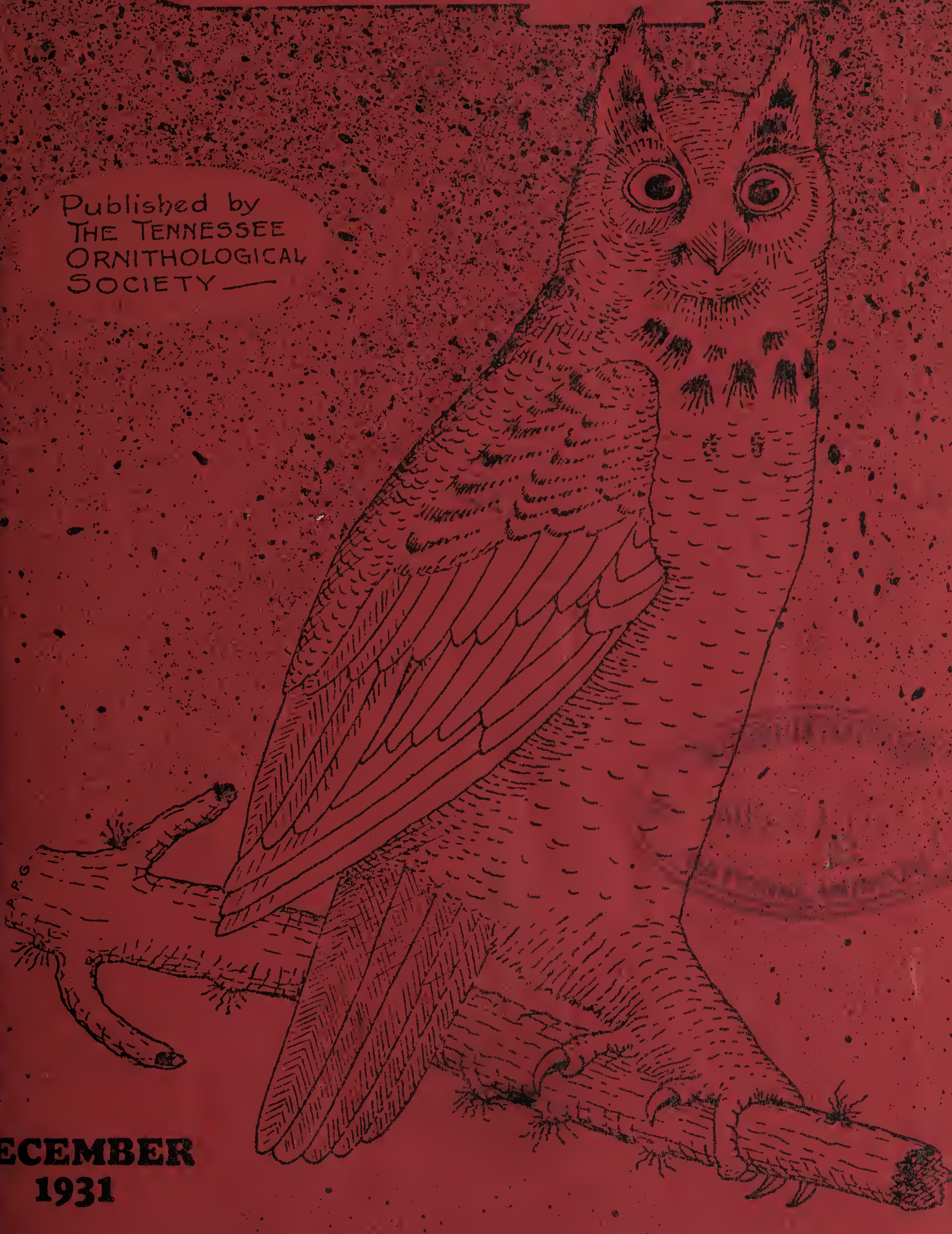

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THE MIGRANT

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A WINTER'S DAY

By ALBERT F. GANIER.

Yesterday had ~~cleared~~ closed with the ground whitening under flurries of snow, a leaden sky and a cutting north wind which gave poor promise of a hike afield on the morrow. Feathered denizens of the woods and fields had retired early and even the little Screech Owl, after foraging a bit, decided that more calories of heat might be retained in his small body if he would return to his hollow tree and forego an attempt to catch a luckless White-throat among the cedars.

But weather is fickle, even in winter, and Sunday dawned under a blue sky. Dazzlingly, the sun arises, from behind the hill and up through the trees as yesterday's snowflakes turn into fields of diamonds. Yesterday, scarcely a living bird could have been seen abroad, but now, what a change! Here, yonder and there, are flitting wings and cheerful voices to greet the warming sun and prospects of breakfast from under the thawing snow. My own breakfast over, I don a snug sweater, an old coat that laugh's at briars, a slouch hat, wool sox, knit gloves and heavy high-top shoes which disdain such things as mud, mush and water, and motor my way out to Otter Creek, a favorite hiking ground. The gate is not convenient, but what of a barbed wire fence? It's done in a jiffy. As my feet touch the ground of this wooded pasture a sharp call ahead of me and there arises a flock of five Killdeer. They circle a bit and light again, a little further up the "wet weather brook," by which they have been feeding and "deer" at me as I pass them by. A patch of buck-bushes ahead stirs with feathered movement and as I come closer, one, two, three—eight buffy Field Sparrows arise and make for the next patch of brush. I pass along and presently am greeted with a hoarse "croak," looking near me in the thick crab-apple tree, I perceive that king of summer songsters—a Mockingbird. There is no need for song now, for mating days are far ahead—too far, indeed, to even be about practice, and then an insectivorous bird on a cold winter day must hustle so briskly for food there's little time for song. Those Starlings, too, of late years, have been greedily stripping the berries that formerly kept him fit. I pass on to the creek bank, always a center of avian activity. There goes a bolt of brilliant blue and a rattling call drifts back to tell me a Kingfisher is trying to "stick out" the winter to avoid tiring his short, stubby wings with further flight southward. Straight up the creek he goes, to the next pool, where he will patiently await the chance to drop like a plummet on some luckless little fish. A warbling call overhead arrests my attention and, casting eyes upward, I view four Bluebirds flying about erratically. They decide the thawing pasture soil will afford good feeding, so down they tumble, alighting on dry mullen stalks to make a further survey. Two brilliant males are near me, the azure back of the one and the russet red breast of the other contrast beautifully with the white snow and the emerald cedars beyond. And, happy coincidence, here comes the last of that trinity of winter birds clad in blue—a Blue Jay—noisily winging his way over to the haystack, where the pigs are crunching a breakfast of corn on the cob. As long as the pigs get their daily ration he will get his as well, and be as happy-go-lucky an evil spirit as in the good old summer time.

My path leads me on up the creek and from the brush at the water's edge there flits ahead a little brown bird which disappears into the tangled roots of an old sycamore. He is too good for me at hide and seek, so I sit quietly, on a stump nearby, as though to say, "I give up." Presently he steps into view to look me over and then I recognize him as that cheerful sprite of the streams, a Song Sparrow. A handsome fellow is he, with neatly spotted breast and small black batwing tie. Others join him and as I pass on there are one or more in sight at every few paces. A dark brown member of the group, with shorter tail, I identify as a Swamp Sparrow. In a willow I perceive a small dusky bird in nervous motion, and as I come closed the steady flicking of its tail reveals the fact that it is a Phoebe. He, too, is a weak-billed insectivorous bird, which partakes but sparingly of wild fruits and berries, so I am forced to conclude that there are more insects abroad in winter than we might realize.

A tenant's cabin lies near my path, and over the rickety fence lean ragweed and sunflowers. There is movement about the sunflower heads and as I focus my binoculars for a better view I find a bevy of Goldfinches in olive garb, hanging head down and forked tail up, drawing forth the little black seed. I move closer and off they go with a "chittering" call and undulating flight. There is a thicket ahead; briars, weeds and buck-bushes red with fruit that look tempting, but which only the White-footed Mice deem a delicacy. A White-throated Sparrow arises and dives again a few paces ahead; in a moment a half dozen of his fellows follow. A larger bird cautiously climbs the far side of a vine-clad stump and announces himself—"joree." Where there's one there's more, and a moment later three other Towhees stealthily slink away and join the White-throats. A flash of red and a Cardinal mounts a brier before he joins two somber females in the canes by the creek. But surely there's a familiar friend missing from this motley throng, so I look about for a Chickadee and presently find him and two of his kind among the withered goldenrods. They were too busy to notice my intrusion for they were digging into the tops of the goldenrod stem galls, knowing that a fat grub lay dormant within. Over a mossy old stone wall I find myself in an open pasture, beyond which lie rough and heavily wooded hillsides. A small flock of Mourning Doves pass overhead, with whistling flight, to join the Jays, where the pigs were fed, and looking on beyond them I perceive a Turkey Vulture, gracefully soaring this way and that, systematically scanning the ground for some hapless creature which may have given up the battle of life. I've been this way before, and know that here a flock of Prairie Horned Larks may usually be found in winter, so I set about to look them up. The grass is closely cropped and I look for a dark grey "patch" upon it. In a few moments I find them—a flock of threescore, busily and silently walking along like a small army of infantry. I approach them cautiously and they allow me to come within fifty feet. Suddenly they arise en masse and after wide, sweeping circles, return and alight in the same spot, to permit my further study. A Red-tailed Hawk lifts himself on buoyant wings above the woodland, so I turn my steps that way, thinking perchance I may find his old nest now, so as to revisit it after the spring remodeling. As I enter the woods, a flock of Cedar Waxwings leave a mass of vines overhead, where they have been breakfasting off fox grapes. They fly compactly and erratically, but wheel and dive into a nearby hackberry tree, where another delicacy awaits them. A whining note a bit further on arrests my attention, and I perceive a small Woodpecker playing hide and seek with me from behind a crab-apple tree. I stalk him from behind another, however, and soon make out the small topknot and tell-tale white stripe down his side which brand him as a Yellow-bellied Sapsucker. Approaching nearer, I find that he has ringed the bark with little holes from which he will daily drink the sap as it gathers.

I survey the winter scene about me and am impressed with its beauty. Splendid white oaks show their strong bare limbs as though defiant of the winter cold; broad beeches, with lowering branches and smooth silvered trunks contrast with hickories, tall and shaggy barked. The green foliage of the cross-vine and the reptilian drapes of a huge wild grape lend further variety. Underfoot, spurge and ferns raise their fresh foliage above the carpet of fallen leaves, and the rocky ledge nearby is green with mosses and saxifrage. There's interest at every turn, and I am inclined to feel downright sorry for those friends of mine who hover about their hearthstones and think of winter, out of doors, as but a drear and lifeless thing.

An old rotten log ahead has been riven into splinters and bits of the soft wood lie all about. I listen for a Pileated Woodpecker, for none but he could have done this job. Within these old logs and in rotten stumps he finds large grubs for his winter's fare. I sit upon the log to eat my lunch and presently am aware that a Winter Wren is fidgeting his small, bobtailed self about the further end. Overhead, a coterie of Myrtle Warblers are busily flitting about and feeding on the seed-tipped branches of poison ivy. Further on through the woodland I hear the familiar whistle of the Tufted Titmouse, calling to the mate who is his constant companion the whole year through.

The sky has again become overcast, the brisk wind of yesterday has reappeared, low clouds move by, presaging more snow before nightfall, and a chilly night. The Crows are already winging their way southward, by twos and threes, to their big roost in the cedar glades some fifteen miles away. Grackles, too, are flocking by, from the Harpeth valley corn fields to the Mount Olivet magnolias and pines, and a sprinkling of Starlings and Cowbirds may be seen among them. A flock of Robins move westward with uncertain flight, toward the buckthorn thicket roost in the Charlotte Hills. I wend my way toward the car, a mile away, and keep tab on how other birds are preparing for this winter's night. A Flicker dives into his last year's nest hole in the top of an ancient sycamore, and presently he is joined by another. As I pass through a clump of cedars, I tap on the trunks and there is a stirring of White-throated Sparrows overhead. Along the creek, the Juncos and Song Sparrows are tucking themselves among the roots where the bank overhangs. In a mass of bronze-green honeysuckle, on an old stump, a solitary Mockingbird and several Juncos have ensconced themselves. I tap a fence post in which I perceive a newly-excavated hole, and a Downy Woodpecker pokes his head out before flying to a nearby limb to scold at my intrusion. A belated Cardinal hurries across the path to join his clan in a briar patch.

The dusk has gathered rapidly and now no more birds are abroad. Before entering my car I check over my card list for the day and find I have recorded 34 species. "Not so bad," say I, "but 35 would have been better. Well, there's number 35 now;" a Great Horned Owl begins to call from the woodland, his deep "whoo-whoo" note carries far and I know that many a small wild creature draws further within its shelter as this ominous call of the night goes forth.

Nashville, Tenn., December, 1931.

THE GREAT HORNED OWL

By GEORGE B. WOODRING.

The Great Horned Owl, with its imposing size, commands attention and respect from even the most casual bird admirer. Being a member of the striking family of Raptores, it forages over valley and woodland in search of its living prey. To some it is often confused with its grey neighbor, the Barred Owl, but the dark brown color and the two tufts of feathers resembling horns will readily identify the subject of this sketch. This great nocturnal bird has been crowded into the heavily-wooded sections, where it spends most of its time.

The nesting of this species is most interesting. It usually selects some large hollow tree, a sycamore preferred, for its home site. However, nests have been found in deserted hawk-nests and along rocky ledges of high cliffs. If unmolested, the same pair will nest in the same vicinity year after year. The eggs are laid about the twenty-fifth of January, often while the snow is on the ground. To counteract the early start that this species gets on the other members of the feathered tribe, it takes about four weeks for the eggs to hatch. Therefore, the weather begins to break and spring is here when the young are approximately a month old. Two large, nearly round, white eggs usually constitute a clutch, but often there is only one—rarely three. Unlike most other birds, the Great Horned Owl uses its nest as a home as well as a brooding chamber in which to raise its young.

This marauder of the night is the largest of the Owls nesting in the United States, being twenty-two inches long, and has a wing spread of about fifty inches. A characteristic of the Owl family is that their flight is noiseless, differing greatly from the flight of the Dove, for instance. In the latter the wind whistles through the even edges of the outer feathers with every beat of the wing. The Great Horned Owl, with its large wind-spread, is able to fly without the slightest exertion; its wing feathers, instead of the clear edge, have a covering of down which allows the wind to pass through without a sound. This sound absorber enables the Owl to move freely when everything is quiet and silently procure its food.

The extent to which this species is harmful is somewhat in question. It seems, however, that its favorite food is rabbit, while young Quail, young Crows and other birds are also among its victims. To help offset this, it catches large numbers of harmful rodents which infest the territory over which the Owl ranges. The food is eaten, fur, feathers, hide, and all; the indigestible portions disgorged in wads known as "pellets."

The Great Horned Owl is noted for the powerful grip of its claws, and with this strength it easily sinks its talons into the vitals of its victims. It is extremely difficult to tame one of this species, for although it may appear meek and quiet in the daytime, at night it becomes a veritable "tiger of the air."

Nashville, Tenn., November, 1931.

The annual Fall Field Day was held on Oct. 18th, at Big Bluff Creek Spring, a mile southwest of Ashland City. Here a large portion of Cheatham County, about 35,000 acres of woodland, has been set aside as a wild life preserve. On arrival, the group dispersed into several parties to list the birds of the vicinity and the day's total was forty-one species. No very unusual birds were found. A hot lunch was ready under the beeches at 1:30, thanks to our efficient lunch committee, and about seventy were served. After lunch, talks were heard from Messrs. Merritt, Mayfield, Ganier, Wilson and Edw. Ray, Secretary of the Kentucky Ornithological Society.

ATTRACTING BIRDS TO THE HOME

By AMELIA R. LASKEY.

As we like to have many bird neighbors, we have for several years sought to attract them in all seasons to our suburban home. We desired our garden to be a bird-haven, so planned to provide the things that would be inviting to them and would meet the needs of bird life, such as roosting and nesting places, water, food and protection from their chief enemy, the cat. Our aim is to provide natural food by planting, but when it becomes scarce or unavailable on account of the weather, we supply what might be termed artificial food, in numerous places convenient to them. Birds soon respond to the enticements of a friendly garden and shrubbery border, rich in wild berries and seeds. They will roost and build nests close to the house if there is dense foliage such as evergreens, honeysuckle and other vines in the plantings. A trellis or arbor covered with our evergreen honeysuckle is an excellent roosting place for Mockers and other winter birds. We have many trees which furnish seeds and fruits relished by the birds. Among them are hackberry, mulberry, hawthorn, mountain ash and cedar. There are many fruitbearing shrubs and vines, both wild and cultivated, which are beautiful in the home planting, including Tartarian honeysuckle, barberry, elderberry, high bush cranberry, untrimmed privet, chokeberry, euonymus (both wahoo and strawberry bush), coral honeysuckle vine and trumpet vine (for the hummingbirds). In inconspicuous places, grow pokeberry and coralberry (the common buckbush). Perhaps the old colored yard man had us in mind when he said: "In the country they digs out buckbushes, but city folks plants 'em and calls 'em scrubbery." A pretty picture is still vivid in my memory—my first sight of a Cardinal. Looking out early one Christmas morning, all outdoors was wearing a mantle of dazzling whiteness and a few feet from the window was a brilliant Cardinal and his mate feeding on the cerise-colored fruit of the buckbush. We also grow some cultivated fruit for the birds—currants, soft cherries and strawberries. Some seed-bearing plants are tucked in odd corners, such as coreopsis and cosmos for the Goldfinches, millet for the Sparrows, and sunflowers, which many birds are fond of eating as the seeds ripen on the stalks.

During the winter and early spring the supply of natural food becomes scarce or is inaccessible on account of snow and ice. Hunger brings our feathered friends to our dwellings for temporary relief at least, therefore we begin in autumn with our artificial feeding program, placing various kinds of food out of doors regularly until Nature again provides bountifully with insects and worms in the springtime. Beef suiet becomes a cold weather substitute for insects and several pounds are eaten in a season. We tie it to trees, place it in wire baskets and fill coconut shells with it. It attracts many birds, including all the Woodpeckers, Brown Thrasher, Mockingbird, Wrens, Chickadee and Tufted Titmouse. Broken bread and crumbs, especially cornbread, are well liked. Cracked nuts of all kinds and what remains after shelling nuts are very popular, for the birds pick out the tiniest morsel both in and among the shells. For the Cardinals, especially, we provide sunflower seed, though it is eaten by many others. Cracked grain, millet, and chicken feed mixture are good winter foods. We feed from window shelves and close to the doors, but at first found it best to place the food at some distance from the house near the trees and shrubs frequented by the birds, until they lost their fear. Feeding shelves having a sloping roof to protect food from rain and snow and a rim about the width of a lath to prevent it from being blown away, are the best. There are many types of feeding devices illustrated and described in Farmers' Bulletin No. 912, obtained by request from the U. S. Department of Agriculture. We use the single and double shelves, hanging them in trees. We also use the weathervane type on a post which keeps the open side turned away from the wind. Some seed and crumbs are always scattered on the ground under the feeding shelves for Juncos and the various Sparrows, which seldom feed at high elevations, but glean the tiny crumbs dropped as the larger species feed. Food is always on the window ledge shelves, for it is easiest to keep such shelves filled on cold days, and it is a pleasure to have the company of the birds and the opportunity for closer observation as well as entertainment. Very amusing is the Mockingbird, which likes his berries served in the Christmas wreaths of holly and cedar hung outside the windows, where he perched, alternating his feeding with fighting what he evidently took to be a presumptuous rival in the window reflection of himself. It was very interesting to watch the Chickadee as he diligently peeled his sunflower seeds, hiding each alternate seed in crevices of a nearby hackberry tree, and the Tufted Titmouse which closely followed him, apparently intent on a meal minus the labor of preparing it. The Titmouse, too, is very prone to carry away and hide bits of bread and suet, long after he has had his fill. Most pleasing are the cheerful calls of the early morning and the gentle pecks at the window as Cardinal, Towhee, Chickadee, Tufted Titmouse, and other feathered friends seem to ask for breakfast or help themselves at the cafeteria.

Nashville, Tenn., November, 1931.

PRAIRIE HORNED LARK IN HOUSTON COUNTY

By G. P. DILLON.

A most unusual nest was found this spring, in the early part of May, in the northeast corner of Houston County, Tennessee, on the farm of J. F. Broaddus. Near the center of a large field on the first bench of slightly higher ground, above the Wells Creek bottoms, this nest was found in land that had been prepared for setting tobacco plants. In loose, mellow soil, a small hole had been scratched out, and into this had been placed small straws, all of the same kind and size, and so evenly set in the side of the walls surrounding that it almost had the appearance of basket weave. No blades had been left on these straws, as they had grown, and this added to the appearance of a small basket which had the golden yellow of clean wheat straw.

No mother bird protested my examination of this nest, and the only marker which would help even a bird to find it in the broad expanse of field was an old tobacco stalk which stretched two gaunt, bleached roots over the nest in an effort to shield it. Greatly interested, I drove a stake so that I could again find this nest that was entirely at the mercy of all and still so hidden in the broad stretch of entirely open field as to be safe from enemies.

On my next visit there were four eggs in the nest. These were about the size of English Sparrow eggs and looked like some especially dark eggs that I have taken from nests of these birds. The eggs were white with a tendency toward sea-green, and the dark "speckles" were distributed evenly all over the surface, which fact made them blend with the surrounding soil. Bird eggs, to me, are speckled, splotched, splashed or marked. Speckles are uniform in size and color. Splotches are irregular in size and color, while splashed and marked are self explanatory. These eggs were speckled and their small end was decidedly blunt.

The mother bird did not get excited at my examination of the eggs, but set off at considerable distance, giving an occasional call, consisting of two musical notes that would be very hard to describe. When the male came, he, too, sat off at a distance and appeared to be the same color and marking as the female. They would not allow one to approach them, but ran or slowly flew away, leading one from the nest.

"What kind are they?" asked my seven-year-old son. "I don't know," was my reply, but they are the size of English Sparrows and they are colored like the little Chipping Sparrow while they are wearing a "bib" that is dark and rounded at both top and bottom. Instead of the red head of the Chipping Sparrow they have an almost black cap that is quarter-moon shaped with the points well up on his head. After some further study and by process of elimination, it was decided that these birds were Prairie Horned Larks.

On our next visit to these birds there were four young with especially conspicuous fuzz on them which, in color, exactly matched the straw in the side of the nest. The seven-year-old boy carefully counted each patch of fuzz that grew on backs, heads and wings, then seriously stated that twelve birds had hatched from four eggs. The following week was our first extremely hot weather and one of the babies died, apparently from overheating. This was left about five feet from the nest, and the following day, on my visit, it was gone. The three remaining birds soon left the nest and I was unable to again find the young or their parents in the field.

Some weeks later, however, I found a similar nest about 200 feet away from the one above described. The young had just hatched and I drove a stake to protect them from the plows that made regular trips through the tobacco rows. Profiting by experience, the last nest was built under the protecting shade of a six-inch Bull-nettle. I was unable to find the parent birds about this nest, and it would seem that they had become accustomed to my presence and trustful of my intentions.

On April 20, Prof. H. C. Major and myself observed one of these Larks at a point 5 or 6 miles northwest of the Houston County site. This bird allowed us to approach to within 10 feet and doubtless had a nest, but being unaware of its early breeding habits, we did not search for it.

Erin, Houston County, Tennessee, August, 1931.

NESTING OF PRAIRIE HORNED LARK NEAR NASHVILLE

By A. F. GANIER.

Mr. Dillon's notes above, together with nesting data given below, extend the breeding range of the Prairie Horned Lark (Otocoris alpestris praticola) to a new southerly latitude. On April 5, 1925, the writer found the first nest of this species known to have occurred in Tennessee. It was located on Paradise Ridge, on the edge of the "Highland Rim," 10 miles northwest of Nashville. The nest contained two young about seven days old, and, calculating backward, incubation on the eggs must have commenced about March 13. The site was again visited on March 24, 1929, when a nest containing four fresh eggs was found about 150 yards from the 1925 nest. On March 16, 1930, H. C. Monk visited the locality and found a nest within a few feet of the 1929 nest. It contained three eggs, incubated apparently about one week. In 1929, 1930 and again in 1931, two pairs of birds were found on each visit, in the immediate vicinity. In 1931 no nest could be located on the occasion of a visit by Messrs. Monk and Crook. Although a close lookout for these birds has been kept by members of the T. O. S., no other breeding pairs have as yet been located within the state. This species occurs here in flocks, as a regular winter resident.

Nashville, Tenn., August, 1931.

THE ROUND TABLE

A Snake in a Mockingbird Nest.—Some years ago, a Mockingbird built a nest in a rose bush, on the fence, fifty feet from my house, and looking into it one day I saw that three eggs had been laid. The next morning early I heard the distress cries of both birds and saw them flying about the nest, quite close to it, but never alighting even on the rose bush. I went at once to the rescue and parted the branches of the bush so that I could see into the nest. As I did so a small snake raised his head above the nest and shook his tongue at me menacingly. He had coiled within it, so as to completely cover the eggs. I retired quietly and returning with a large pair of scissors, again parted the branches and as the snake stuck his head up I quickly cut it off. I washed the three eggs in the dew-wet grass, wiped them dry and replaced them in the nest. At noon that day I looked again and found that a fourth egg had been laid. All of the eggs hatched, and in due time the young left the nest.—Mrs. Sanford Duncan, Gallatin Road, Nashville.

A Biological Station is to be established at Reelfoot Lake on a ten-acre tract at Walnut Log. A lodge is now on the property and the State has appropriated $2,500 for further improvements.

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THE MIGRANT

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THE MIGRANT

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THE PASSING OF THE PASSENGER PIGEON

By H. P. IJAMS

The passing of the Passenger Pigeon represents one of the saddest pages in the history of the bird life in this country. More interest is evidenced in its history and its fate than in that of any other North American bird. Its story reads like romance. Once the most abundant species ever known in any country, ranging over the greater part of this continent from the Gulf of Mexico to Canada in flocks so great that they hid the face of the sun, it has vanished from the face of the earth, leaving us only a few mute specimens in museums and private collections to remind us of its sad end, and to serve as a warning of what happens when no thought is given to the preservation of wild life.

The first settlers in this country found the Passenger Pigeon in infinite numbers. They provided a source of food for the Indians. Wherever roosts were established Indians always gathered in great numbers. Early historians speak of flocks of them so great that they broke down trees in the woods where they roosted. Early settlers in Virginia found the pigeons "beyond number or imagination." Their flights in migration extended over vast tracts of country. A continuous stream of pigeons, three miles wide, that it took three days to pass a given point, was observed as late as 1860. Audubon and Alexander Wilson, the father of American ornithology, record instances of observing the flights of more than 2,000,000,000 pigeons in one flock. These birds traveled at a rate of a mile a minute and the light of noonday was often obscured as by an eclipse.

The migrations of these birds was not the regular, long-drawn-out movements that characterized the sensational flights of most birds. They were undertaken chiefly in search of food which consisted mainly of wild berries, nuts, insects and grain. They were so swift and tireless in flight that they could pass from zone to zone in a day. They migrated en masse. That is, the birds of one great nesting or roosting place rose into the air as one body and the movement of these immense hosts formed the most wonderful and impressive spectacle in animated nature.

There were stirring sights when great herds of grazing animals thundered over the Western plains, but the approach of the mighty armies of the air was appalling. The vast multitudes, rising strata upon strata, covered and darkened the sky, hiding the sun, while the roar of their myriad wings was likened to that of a hurricane. Thus they passed for hours or days, while the people in the territory over which the pigeons winged their way kept up a fusilade from every point of vantage. Where lower flights passed close to the hilltops, people were stationed with guns, poles, rocks and other weapons to knock down the swarming birds. At night their roosting places were raided and thousands killed. For weeks after the passage of a flock the people in some sections fed on no other flesh than pigeons.

Their winter roosting places almost defy description, says Audubon. He rode through one on the banks of Green River in Kentucky for more than 40 miles, crossing it in different directions, and found its average width to be more than three miles. The ground was white with droppings like snow; trees two feet in diameter were broken off. When the birds came in at sundown there was a great uproar and confusion, and a crackling of falling limbs not unlike a storm. On April 17, 1810, Alexander Wilson visited a roost in this same region and found that the birds were nesting in vast numbers, the nests holding young at the time. This was one of the mo southerly nesting colonies of which we have been able to find record.

The nesting places sometimes were equal in size to the roosting places, frequently covering 100,000 to 150,000 acres. As many as 50 nests were observed in a single tree. The females laid one to two eggs, and were generally believed to raise more than one brood in a season. The squabs were in greater demand for food than the older birds, and for this reason raids were made upon their nesting places and the young slaughtered by the millions. In some places hogs were fatted upon the butchered squabs and older birds left on the ground after a raid. The most destructive implement was the net, to which birds were attracted by bait. Gunners also baited the birds with grain and dozens were frequently killed at a single shot.

In the latter part of the nineteenth century, hundreds of men made a profession of following the birds wherever they went. They kept up with their movements by telegraph and moved to each new location as rapidly as possible. It required fifteen tons of ice to pack the squabs killed in the last great slaughter recorded in New York State. In the seventies it was said that the New York market alone consumed 100 barrels of pigeons a day for weeks without a break in price. It was this market demand that brought about the extinction of the Passenger Pigeon. When they began to become scarce the Indians raised objection to the way they were being slaughtered, and many tribes did everything in their power to prevent their total destruction, even using threats where pleading did not avail. The destruction of a large part of the young each year was what hastened the end. Nature cut off the rest with old age.

The last great slaughter was in 1878 at Petoskey, Michigan, when more than 1,500,000 birds were killed and shipped to market and perhaps as many more wounded birds and young squabs perished as a result. Over 2,000 people were at the nesting place, engaged in the business of trapping, killing and shipping pigeons. One Michigan firm reported the shipment of five cars a day to the New York market over a period of thirty days. In two years one authority says over twelve billion were killed and shipped to market from one town in Michigan, while another section contributed sixteen million. Another town killed and shipped over $4,000,000 worth.

The 1878 slaughter was a blow from which the Pigeons never recovered. A much smaller breeding colony was recorded near Grand Traverse, Mich., in 1881, and the same wholesale slaughter for market purposes was carried out. After 1881, only scattering flocks were seen, and from that time onward the diminution of the birds was continuous until they became extinct.

William Brewster visited Michigan in 1888 to investigate a reported reappearance of the birds there and learned that small scattered flocks had passed northward into Canada during late April. Their nesting place of that year was never found, and the theory has been advanced that late snowstorms in this northerly latitude may have wiped out the remnant that remained. Major Charles Bendire, writing in 1892, said: "The extermination of the Passenger Pigeon has progressed so far during the past twenty years that it looks now as if their extermination would be accomplished within the present century." His prediction came true. Bendire further records that the Pigeons did not always breed in colonies, and that their distribution in isolated pairs, through the North, was comparable with the Mourning Dove of the present day. Men had formed the habit of killing Pigeons on sight, however, and these isolated pairs were soon shot out as the country settled up.

The ruthless destruction of this species had much to do with the passing of our present game laws. No adequate attempt to protect them was made until they had virtually disappeared. Whenever a law looking toward the conservation of these birds was proposed in any state, its opponents argued before legislative committees that the Pigeons "needed no protection;" that their numbers were so vast and that they ranged over such a great extent of country, that they were amply able to take care of themselves. Where laws were passed, they were not enforced.

Audubon, in describing the dreadful slaughter of these birds at one time, said that people unacquainted with them might naturally conclude that such destructon would soon put an end to the species; but he was satisfied himself, by long observation, that nothing but the gradual diminution of the forests could accomplish the decrease of the birds.

The enormous multitudes of the Pigeons made such an impression upon the mind that the extinction of the species seemed an absolute impossibility. Nevertheless, it has occurred. In 1878 the Cincinnati Zoological Garden bought three pairs of Pigeons. They hatched and raised several young. Then the old ones started to die off, as did some of the young, and finally only two were left, a male and afemale. The male died in 1910 and the female in 1914, at the age of 29 years. The last bird to die was presented to the Smithsonian Institution at Washington.

In 1910 the Zoological Garden offered $100 for a pair and in 1914 the offer was increased to $1,000, but no one ever claimed the reward. So in thirty years the most numerous of all birds in the country vanished. The last record we have of a Passenger Pigeon being killed in the wild state occurred in 1908.

Knoxville, Tenn.

(NOTE.—In a later number we hope to present an article dealing with the former occurrance of Passenger Pigeons in Tennessee. Information from our members on this subject is solicited.—Editor.)

* * *

THE RED-TAILED HAWK

By HARRY S. VAUGHN

Possibly the most maligned of all Tennessee birds is the Red-tailed Hawk, the largest member of the hawk family. As a matter of fact it is quite peaceable with other species of birds except perhaps in the vicinity of its nest. It is rather easy to identify, due to its large size, mode of flight and shape of wing, even though you do not get a glimpse of the brick red color on the upper surface of the tail. This red is quite noticeable when the birds are soaring, particularly if the sun is shining. During each circle which the bird makes there is a point where the tail is turned enough so that the observer can see its upper surface. Until the young birds are a year old, however, their tails remain a dusky gray.

The food of the Red-tail consists chiefly of young rabbits, squirrels, cliff rats, mice, snakes, frogs and lizards. Only rarely does it molest poultry, despite the fact that many country folks know it by the name of "Chicken Hawk." Among those who are more discerning, however, the name "Rabbit Hawk" is used. If quite hungry and chicken is at hand, why chicken is served. However, they do not make it a practice to spend time about the chicken yard, as does the Cooper's Hawk, awaiting some unsuspecting young chicken to come within range.

These birds nest only in the larger tracts of big timber, and for that reason are rarely found within five or six miles of cities. Their nests vary in height above the ground from sixty to one hundred feet, being placed in suitable forks near the tops of the trees. Hickories, oaks, black gum and poplar trees are the most popular, in the order named. In hilly country, the site preferred is at the head of some well wooded valley. The nest situation is such that the birds, when sitting upon it, may be on a level or slightly higher than the top of the hill, thus enabling them to see the approach of humans. Even while sitting it is difficult to observe the bird on the nest, so quick are they about taking leave, nor will they return to the nest while the intruder is near. However, they will circle over the nest, at a safe distance, occasionally voicing their displeasure by their shrill cries. Only on one occasion have I observed a Red-tail approach a nest. I was standing behind a tree looking at an old one which was being rebuilt, when I noticed one of the hawks coming at a very rapid speed, and in a direct line to the structure. Its talons were bearing some good-sized branches, which it dropped on the nest.

This species will often have two nesting sites, using first one and then another. Only one brood is raised each season, the eggs being laid from the tenth to the last of March. The nest is rebuilt each season by raising the rim with twigs and by bringing in a fresh lot of lining material. This lining is composed of shredded bark fibre, grass, roots and leaves. The depression in which the eggs are laid is rarely deeper than the thickness of the eggs, and measures about twelve inches across. The width of the entire structure depends somewhat on its location, but often measures three feet. Twigs of considerable size are frequently used in the nest, and from the ground it appears much less compact and larger than that of a Crow.

Two eggs are usually laid, although three have frequently been found about Nashville. In the West the Red-tail often lays four eggs. The markings are of a pale reddish or light brown shade, usually in large, irregular blotches, but often small markings, smears or streaks. Not infrequently a pure white egg is found.

There is some question as to whether it does or does not migrate. In winter it is usually seen singly and it may be that the females and young migrate, leaving the old males behind. These wintering birds, however, may be from a northerly region, merely spending the winters here. There appear to be fewer of them in midwinter than in summer.

These splendid birds of prey are very constant to a locality once they have adopted it as their home. To become acquainted with them, one must seek out these haunts, which is by no means easy, for they are no longer a common bird in this state. They are believed to live to a ripe old age provided they keep out of range of the country boys' guns.

Nashville, Tenn., February, 1932.

* * *

"The Birds of Arkansas," by W. J. Baerg, is a new book that should be in the hands of all T. O. S. members, since it treats of the birds of an adjacent state much like our own. It is a state publication of 200 pages, illustrated, with paper covers, and the 312 species enumerated are arranged according to the new A. O. U. check list. A copy may be had for 85 cents postpaid, by addressing D. T. Gray, Division Agricultural Experimental Station, Fayetteville, Ark.

RED-SHOULDERED HAWK NOTES

By G. M. YARBROUGH

We had been tramping all day, making a systematic search of the wooded sections along the Cumberland River bottoms above Shelby Park. It was the 27th of March, 1928, and while we were making a general field list as we pushed on, our chief interest was in locating a pair of Red-tailed Hawks.

Late in the afternoon we found ourselves in the middle of a wooded swamp—a dismal spot, so still and seemingly devoid of life that the distant tapping of a Pileated Woodpecker startled us. Not a sign yet of a hawk's nest or of the bird. So far as hawks were concerned, it looked like another of those fruitless trips. Suddenly a shadow crossed the fast-sinking sun, and glancing up we saw a large hawk soaring gracefully over our heads. The Red-tailed Hawk as last, we thought. We quickly focused our binoculars on the bird and to our great surprise discovered that we were not looking at a Red-tailed, but a slightly smaller member of the Buteo family, the Red-shouldered Hawk. Here indeed was a find, because these birds have rarely been found in Middle Tennessee during the breeding season.

For a while we watched the bird swinging low over a nearby field, probably in search of field mice or crayfish, and then, having recovered somewhat from the shock of discovery, it suddenly occurred to us that this was the male bird and that it was entirely possible the female might be sitting on their nest somewhere in or near the swamp. Our search was successful, for we soon found the nest with the female on it in a fair-sized beech tree just inside of the swamp. When we approached, the bird flushed and we did not see her again while we were in the vicinity.

A friendly grape vine made the ascend to the nest fairly easy without climbers. It was situated in a fork of the main trunk about thirty-five feet from the ground. Two eggs, smaller than those of the Red-tailed and marked with brown blotches, rested in a slight depression, on strips of bark. A close examination of the nest showed it to be considerably smaller than that of the Red-tailed Hawk, containing no leaves and trash, which is so characteristic of the latter species. On March 31 we returned to collect the set and were disappointed to find only three eggs, having hoped to find four. It was interesting to note, however, that the third egg was somewhat smaller than the other two and was not marked. The behavior of the birds was the same as on our first trip.

This pair of Red-shouldered Hawks have remained in the same section ever since, building within a radius of a mile of the spot where they were first located. On April 14, 1929, another nest of this pair was located in a large black oak tree a few hundred feet from the 1928 nest. It contained three young birds, just hatched, and one addled egg. In 1930 we were unable to locate the nest at all. In 1931, the nest was found on the broken-off top of a large sycamore tree nearly a mile farther down the river and on the river bank. A set of two eggs was collected from this nest on April 3, 1931, about seven days incubated. The nest was about thirty-five feet above the ground and very hard to reach.

The Red-shouldered is one of our useful hawks. Its diet consists of quantities of field mice, frogs, crayfish, snakes and grasshoppers. This particular pair had a fondness for crayfish, and quantities of their shells could be found about the base of every fence post where they had elected to eat them. Like the Red-tailed Hawk, and unlike the Coopers, they rarely feed on poultry or quail.

This is the only pair of Red-shouldered Hawks that we have been able to find nesting in this section, and it will prove interesting for bird students to take a trip up the Cumberland, in order to make a personal study of these birds. It is also interesting to note that this pair reside here the year round, while others of the same species from a more Northern section pass through here on their way South, but fail to tarry.

Nashville, Tenn., February, 1932.

* * *

SOME SPRING OBSERVATIONS

By MARGARET STACKER

Whether we study birds from a scientific or an economic viewpoint matters but little; just so we know birds we live a bigger, broader life. Any branch of nature study brings us in closer touch with the infinite. If we observe birds, all kinds and at all seasons, we soon come to realize how big they are and how little we are. It pleases me to cite two instances of the real value from an economic viewpoint, and the real pleasure from a sentimental viewpoint of my bird friends.

In the early spring, while having garden soil prepared for planting, I was watching the plowing when my attention was called to two Bluebirds sitting on a grape vine trellis also watching the operation. One flew down into the newly turned earth and arose with something in his mouth. Immediately the second bird did likewise. I watched them make repeated trips to and from the ground, and upon investigating I found they were picking up cutworms, the early gardener's worst foe. Soon a pair of Robins appeared on the scene, and within an hour I counted sixty-two trips made by the four birds, each trip meaning the destruction of a cutworm. The past spring was notable for cutworms in the gardens of my neighbors. I did not lose half a dozen plants by them. I feed my birds and encourage them to live in my yard, garden and orchard. My neighbors pay no attention to their bird friends and raise cats to catch rats and discredit the value of birds as destroyers of garden pests.

We have derived untold pleasure from the comings and goings of a pair of Mockingbirds which have made their home in a honeysuckle in an angle of the residence for three successive years. The vine is protected on the north and east and within two feet of the kitchen window, five feet from the living room window, and just below an upstairs bedroom window. The first intimation that spring house-cleaning is to be done in the apartment is the utterance of a few low and wonderfully sweet notes by the male bird at about four o'clock in the morning of the early spring. This performance is kept up for several mornings before he takes up a lofty position in the topmost branches of a nearby tree and pours out showers of golden song. During the winter the male returns to his honeysuckle home to roost during very cold weather. He heralds his coming at about the twilight hour with a cry given at no other time. He is a regular boarder at the feeding station maintained throughout the year near the "Honeysuckle Apartment."

Cumberland City, Tenn., August, 1931.

CHRISTMAS CENSUS, 1931

	Nashville	Knoxville	Memphis		
Species	Dec. 25	Dec. 27	Dec. 24	Dec. 25	Dec. 26
Pied-billed Grebe	1	--	1	--	--
Double-crested Cormorant	1	--	200	--	--
Great Blue Heron	--	--	--	4	--
Canada Goose	--	--	--	--	12*
Snow Goose	--	--	--	25	--
Mallard	43	--	--	--	--
Black Duck	--	--	--	25	--
Wood Duck	--	--	--	15	--
Lesser Scaup	40	--	--	35	3
Ringneck Duck	90	--	--	--	--
Golden-eye	1	--	--	--	--
Red-breasted Merganser	--	--	--	3	--
Ducks (unidentified)	--	--	200	--	--
Turkey Vulture	1	--	12	2	5
Black Vulture	5	--	40	1	12
Coopers Hawk	1	1	--	--	--
Red-tailed Hawk	1	--	1	--	1
Red-shouldered Hawk	--	--	--	--	1
Bald Eagle	--	--	1	--	--
Marsh Hawk	1	--	--	--	--
Sparrow Hawk	16	1	4	3	1
Bob-white	8	--	--	3	15
Wild Turkey	--	--	--	--	1
Coot	81	--	1	8	--
Kildeer	60	2	4	8	90
Wilson's Snipe	--	--	--	2	--
Herring Gull	--	--	1	1	--
Ring-billed Gull	--	--	2	12	--
Gulls, Herring & Ring-billed	--	--	--	65	--
Mourning Dove	6	26	3	2	24
Screech Owl	3	1	--	--	--
Barred Owl	1	--	--	--	1
Kingfisher	4	--	--	--	1
Flicker	55	10	36	35	25
Pileated Woodpecker	2	2	--	--	1
Red-bellied Woodpecker	11	5	10	17	15
Red-headed Woodpecker	2	6	12	26	24
Yellow-bellied Sapsucker	2	--	3	1	2
Hairy Woodpecker	5	--	--	2	--
Downy Woodpecker	9	28	1	1	12
Phoebe	1	6	--	1	2
Prairie Horned Lark	61	--	--	--	--
Blue Jay	9	17	40	17	50
Crow	36	41	2	6	2
Carolina Chickadee	48	104	12	22	20
Tufted Titmouse	15	35	12	30	10
White-breasted Nuthatch	3	1	--	2	--
Red-breasted Nuthatch	--	1	--	1	2
Brown Creeper	2	1	--	4	--
Winter Wren	3	8	4	5	1
Bewick Wren	4	--	--	--	--

Carolina Wren	19	23	24	40	20
Mockingbird	68	15	16	30	8
Brown Thrasher	--	--	--	7	--
Robin	36	62	--	450	1
Hermit Thrush	--	--	15	3	5
Bluebird	84	11	8	54	15
Golden-crowned Kinglet	8	--	10	35	10
Ruby-crowned Kinglet	--	18	1	3	1
Cedar Waxwing	32	2	1**	--	--
Migrant Shrike	2	--	12	6	6
Starling	--	52	--	--	--
Myrtle Warbler	22	66	12	50	5
English Sparrow	Com.	Com.	Com.	Com.	Com.
Meadow Lark	113	17	1	160	24
Red-winged Blackbird	--	--	--	--	1
Rusty Blackbird	20	--	10	6	5
Bronzed Grackle	--	--	300	1600	1
Cowbird	2	--	--	3	--
Cardinal	116	33	30	92	40
Purple Finch	6	26	--	--	--
Goldfinch	24	97	3	7	10
Towhee	31	31	--	35	6
Savannah Sparrow	5	11	--	--	60
Fox Sparrow	7	--	--	16	2
Junco	81	12	4	--	50
White-crowned Sparrow	7	--	--	--	--
White-throated Sparrow	69	154	80	--	250
Chipping Sparrow	--	4	--	--	--
Field Sparrow	105	130	3	--	15
Swamp Sparrow	4	5	--	1	--
Song Sparrow	85	81	50	150	45
Number of Species (82)	60	40	41	52	48
Number of Individuals	1876	1150	1193	3136	903

*Dec. 27. **Dec. 23.

Nashville: Dec. 25, four parties; within a range of ten miles of the city, including Radnor Lake and Cumberland River bottoms; Messrs. Mayfield, Ganier, Hayes, Spain, Monk, Crook, McNish, Mr. and Mrs. Woodring, Mr. and Mrs. Sharp, Mrs. Duncan, Mrs. Laskey and Mrs. Cochran.

Knoxville: Dec. 27; vicinity of town; dull and cloudy; 8 hours; Messrs. H. P. Ijams, W. Johnson, B. Crouch, S. A. Ogden and E. Henry.

Memphis: Dec. 24; Horseshoe Lake, 12 miles southwest of city; 11 miles on foot; Ben B. Coffey, Robert Reinert, George Reed and Jack Embury. Dec. 25; Raleigh, Wolf River Bottoms, National Cemetery, Overton Park, Wharf, Riverside Park, Pine Woods and Nonconnah Creek; 15 miles on foot; one main group; Mr. and Mrs. Coffey, Reinert, Reed, Embury and H. Clark; Acle Boyd, seven miles up Mississippi River by boat. Dec. 26; Camp Currier, 20 miles south of city and Lake Cormorant en route; Messrs. Coffey, Gerald Capers, Reinert, Reed, Embury, Ragsdale and Madre.

The 1930 census showed 56 species at Nashville, 51 species at Memphis and 42 species at Knoxville.

THE ROUND TABLE

AN EAGLE CENSUS FOR TENNESSEE: We reproduce below a letter from our President, which is self-explanatory:

"To My Fellow Members of the Tennessee Ornithological Society: The status of the Bald Eagle is becoming alarming. The two glimmers of hope that we have are the recommendation to repeal the Alaska Bounty Bill and the Eagle Bill which is pending reintroduction to Congress. In the meanwhile we should do all in our power to create a favorable sentiment toward the bird which is our National Emblem. As a preliminary step I am appointing a committee composed of the following: A. F. Ganier, Chairman; Ben B. Coffey and Brockway Crouch, to make a census of the remaining birds, showing the nesting range in Tennessee and adjacent States. After this census is made a report should be submitted to the Society outlining some constructive policy wherein we could be of benefit in conserving this noble bird. Sincerely yours, H. P. IJAMS, President, T. O. S., Jan. 15, 1932."

Work by the committee was begun immediately. Mr. Crouch will assist the Chairman with the eastern part of the State, while Mr. Coffey is assisting with the west. Questionnaires have been directed up and down the Mississippi Valley from Cairo to Natchez, which area is believed to be the last great stronghold of the Bald Eagle in the interior.

FLICKER CAPTURED BY A BULLSNAKE: One sultry morning in August, 1931, I was awakened about five-thirty by a great commotion among the birds, in a group of large walnut trees that tower above my sleeping porch on the second floor. I arose and went from window to window trying to find the cause of the excitement. There were numbers of almost every kind of bird common in this locality—Mockingbirds, Flickers, Bluebirds, Chickadees, Titmice, Cardinals, Sparrows, etc., all screaming S. O. S., but I could see nothing to alarm them. An innocent gray squirrel sat on a lower limb eating a walnut. Below him was the feeding basket, the bird bath and the sparrow trap, and nothing out of order. Suddenly a number of the smallest birds left the trees and flew away over the house in great haste, but returned immediately, accompanied by half a dozen screaming Blue Jays, which flew and darted from tree to tree, screaming incessantly. I suspected a snake, but found none, so guessed it was too small, or so camouflaged against the tree that I could not distinguish it. In the course of half an hour the birds gradually dispersed. Two hours later the tumult began again, this time a hundred feet or more from the walnut trees, and the birds were flying closer to the ground. The Flickers were leading the battle, dashing and darting at a bundle of something on the ground. Closer inspection with field glasses showed it was a snake, all tied up in a curious knot. He was too big for me to attack with the hoe I had, so I shot into the "bundle" with a shotgun. As if by magic the snake flung himself into the air and fell, straightened out, over five feet long, and disclosed a full-grown Flicker that he had wrapped himself around many times. The Flicker was still alive, but died very shortly, probably from the gunshot that killed the bullsnake. Who can tell me how a snake could catch a full-grown Flicker?—Mrs. Sanford Duncan, Nashville.

NOTES FROM MEMPHIS: A Catbird, noted on November 29, is our latest record here for this species. A series of field trips every Saturday has been scheduled this winter, for T. O. S. members and Scouts. The Wild Turkey, reported in our Christmas census of Dec. 26, at Camp Currier, 20 miles south of Memphis, was seen by Camp Director H. C. Myers after our party left. During January the Ring-billed Gulls and occasionally a Herring Gull, have been regularly seen on Wolf River, in front of our uptown district. Miss Mary Davant reports that she first saw them about Dec. 1, and believes them to be less common this year than last. On Jan. 24, Sunday morning, 38 species were listed on a trip to Wolf River bottoms, Raleigh. The number of individuals of each species was larger than usual, especially with regard to Bronzed Grackles and Rusty Blackbirds. A close lookout for Starlings was kept, but none was seen. The writer, as a member of the Eagle Committee, is getting some interesting returns from the Bald Eagle Census of the Mississippi Valley. The writer is also conducting a weekly "column" in the Memphis Evening Appeal, entitled "Nature Lore in the Valley."—Ben B. Coffey.

PINE WARBLERS NOT WINTERING: The Pine Warbler has been reported as wintering in Arkansas and even in Southern Illinois, so that it would seem they might be found at this season at Craggie Hope, 25 miles west of Nashville, where there is a thick growth of pines on the bluff above Turnbull River. In this strip of pines this species is found in some numbers as a regular summer resident, it being the only locality in the Nashville area where it has been so found. Thinking that the present mild winter would be particularly favorable to its presence, Messrs. Mayfield and the writer canvassed the locality on Jan. 24, and after spending two hours there, found not a single Pine Warbler. It was particularly interesting to note, however, that Myrtle Warblers had taken their places and were feeding among the tops of the pine trees in some numbers. Upon a more superficial examination they might have easily been mistaken for Pine Warblers. Rather deliberate in their actions, at times working about the bark of the trunk and branches and keeping busily engaged with their feeding, they closely simulated the actions of the summer "wardens" of the grove. As the hour for repairing to roost approached, the Myrtles left the pines and betook themselves to a dense growth of laurel which grew near the top of the bluff. Here they allowed a close approach and appeared to be bent on finding lodging for the night among the thick mass of leaves which had fallen in the laurel thicket.—A. F. Ganier, Nashville.

NOTES FROM MT. PLEASANT, MAURY COUNTY: Reading the notes in the last issue on Prairie Horned Larks reminds me that I found a nest of that species on my farm here in 1929. I see a few Bartramian Sandpipers here every spring; one year they were so tame that I had to stop my tractor to keep from running over one. There is a little pond on my place where I have seen King Rails several times. In 1930 a pair of Least Bitterns nested there, but something must have happened to them, for they disappeared and I did not find the nest until the eggs were spoiled and the shells broken.—Dan R. Gray.

LECONTES SPARROW IN WINTER: On the afternoon of February 6, 1932, I observed one of these birds at the rear of my place on Stone's River. The situation was a small valley (Brown's), which lies north of the bluff and about a thousand feet from the river. High water in the river had flooded much of the lowland and it is probable that this forced the bird to higher ground from what would appear to be its natural habitat. The grassy areas where the bird was found were too restricted to indicate that it had taken up winter quarters here. It was flushed from a ditch bank, along with Juncos, Field and Song Sparrows, and flew across the sedge patch to a small thicket, close to an old rail fence, where I viewed as closely as fifteen feet with my binoculars, and satisfied myself as to its identity. Mr. Ganier was at his camp nearby and, acquainting him with my find, we returned together to view our rare guest. The bird was still near the old fence and allowed a close view as it sat perched in small bushes, two feet above the ground. This was unusual, for this bird is generally found on the ground, skulking among the grass. We were both entirely familiar with its appearance and its identity was beyond question. In addition to the yellowish frontal portions, the well-patterned back was quite conspicuous. The next morning it was carefully looked for again, but it could not be found. I have two unpublished records, from previous years, as follows: On September 25, 1929, I observed a Lecontes Sparrow in Williams' Field, about a mile north of the location above described, and in April, 1930, in an alfalfa field near Mill Creek, I saw what I am reasonably sure was another bird of this species. In Wilson Bulletin for December, 1925, there are published two other records: November 12, 1916, and October 24, 1925. We have heretofore regarded this sparrow as a transient only, and this midwinter record may have been caused by the unusually mild season we have had.—G. R. Mayfield, Nashville.

EARLY NESTING OF THE KILLDEER IN DAVIDSON COUNTY: The general early nesting of the Killdeer this year would seem to be worthy of mention. Four nests were found by Harry Monk and myself on February 27 and 28. Two of these nests contained completed sets of eggs, the other two, one egg each. Incubation on one of the sets found on February 28 was found to be advanced, at least ten days. Thus the bird was brooding a complete set on February 18, the earliest record for the region by eight or nine days. A fifth nest was noted on March 6, the bird sitting.

It is interesting that the majority of the Killdeers are still in flocks, sometimes ten or fifteen birds being seen feeding together in the same field with brooding birds.—Compton Crook.

HERRING GULL AND OTTER AT NASHVILLE: The high flood of the Cumberland River during the first part of February brought two unusual visitors to Nashville. On Feb. 5, a Herring Gull was observed patrolling the city water front, sailing backward and forward under and over the bridges. On Feb. 4, an Otter, supposed to be practically extinct in Middle Tennessee, was killed in a branch of Sugar Tree Creek, in Belle Meade. Finding the water too shallow in which to hide, he came out on the bank and whipped two dogs, only to fall a victim to rifle bullets. The animal is said to have measured four and one-half feet from tip to tip. With a species so rare, one cannot but have a feeling of regret that man could think of no better fate than death for what may here be chronicled, "the last Otter."

The new Check List of North American Birds, recently issued by the American Ornithologists' Union has added the word Eastern, Common, etc., to the names of practically all of our common birds for which sub-species have been recognized. Thus these forms are now designated Eastern Mockingbird, Eastern Robin, Eastern Yellow Warbler, Eastern Red-winged Blackbird, Eastern Golden Crowned Kinglet, Common Sawwhet Owl, etc. This leaves us free to use the names Mockingbird, Robin, Yellow Warblers, Redwing, etc., just as we always have, in our notes, records and field lists. Only where we wish to be very exact need we prefix the names Eastern, Southern, Common, etc., and obviously the average observer is unable to determine the difference in the field between the species and the sub-species. *The Migrant* has therefore settled upon the policy of printing field lists and other notes without the prefixed name except in cases where the contributor has taken the necessary steps to verify his accuracy. The Christmas Census, published in this issue, is an illustration of our present policy.

WHEN TELLING of birds, the simple truth is interesting enough. No true ornithologist ever goes beyond it.

PLANTING FOR BIRDS: In addition to birds that may be induced to make their homes about our yards, by providing suitable nesting boxes, there are many which prefer a less artificial refuge. A trellis or small cedar pole "wigwam" planted with common honeysuckle, bronze vine or clematis will make an ideal nesting place for Cardinals, Mockingbirds, Brown Thrashers, Catbirds and Chipping Sparrows. Such refuges will also be gratefully accepted as winter roosting places by the first two species mentioned, as well as other winter birds. The bronze vine bears small berries which are much liked by the birds in autumn. Certain climbing roses may also be used to cover the support; the one which will provide the thickest growth being the Dorothy Perkins. Mrs. Laskey's article in the last number gives valuable hints on planting. Nest boxes should be cleaned out, relocated or renewed, since their users are early nesters.

The Spring Meeting of the Tennessee Academy of Science will be held at Reelfoot Lake on April 24-25, at the site of the new Biological Laboratory at Walnut Log. A symposium of the natural history of the lake will form the greater part of the program. The Curator has been asked to present a paper on birds. The meetings will be on Saturday and Sunday and all T. O. S. Members are invited and urged to attend.

A bibliography of the publications relating to the birds of Tennessee and adjacent states, by Dr. Jesse M. Shaver of Peabody College, Nashville, appeared in the December, 1931, number of The Journal of the Tennessee Academy of Science. Copies may be secured at 50 cents apiece by addressing Dr. John T. McGill, Sec.-Treas., Vanderbilt University, Nashville.

Dr. H. C. Oberholser of the United States Biological Survey was a visitor in Nashville on March 2. He had spent the previous day on Reelfoot Lake, and, among other things, he counted seventeen Bald Eagles, none of which had reached the white-headed stage of plumage. He has been looking over the duck situation on the coast and reports that the Lesser Scaup is one of the species most seriously reduced in numbers by the drouth.

Our East Tennessee Chapter at Knoxville, according to President H. P. Ijams, had a year list for 1931 of one hundred and seventy-one species of birds.

Upon request of the Editor, Messrs. A. F. Ganier, Ben B. Coffey, George R. Mayfield, Vernon Sharp, Jr., and Miss Mary Beard have been appointed to serve with him in the capacity of an Editorial Board to get out The Migrant.

The Migrant is sent to all members not in arrears for dues. Active membership is one dollar a year; associate membership is fifty cents. Subscription to non-members is fifty cents. All articles and correspondence should be addressed to the Editor, George B. Woodring, 1414 Stratton Avenue, Nashville, Tenn. Dues should be sent to the Treasurer.

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SPRING BIRD CENSUS FOR TENNESSEE

BY MEMBERS OF THE T. O. S.

The following series of six all-day bird lists have been prepared with a view of giving a cross-section of Tennessee's bird life during the three weeks prior to mid-May. A goodly number of our active members have thus been enabled to make a worth-while contribution to our knowledge of the birds of our State by covering five widely separated localities within it. Obviously a number of species were missed on the days of listing which were well known to be present. All records about which there was any question have been eliminated from the lists. The ever-present English Sparrow, as well as the recently liberated Mexican Bob-white and Ring-necked Pheasant, have been omitted. Where the actual number of birds seen is not shown, they are designated as: (A) abundant; (C) common; (FC) fairly common, or (P) present but number not recorded. (Fl) denotes a flock. Those followed by an * were observed the previous day, by a † indicates that further notes may be found in the Round Table Department, and by an x, that further notes are appended at the bottom of page 16.

	Reelfoot Lake	Memphis		Nash-ville	Knox-ville	Johnson City
SPECIES	April 23-24	May 8	May 15	May 15	May 1	May 1
Grebe, Pied-billed	--	9†	2†	--	--	--
Cormorant, Double-crested	3,000†	--	--	--	--	--
Heron, Great Blue	15†	--	--	1	--	--
Heron, Green	1	3	6	10	2	P.
Heron, Black-crowned Night	--	--	--	2	3	--
Egret, American	3†	--	--	--	--	--
Bittern, American	3	--	--	--	--	--
Bittern, Least	--	1*	--	--	--	--
Ibis, Glossy	--	--	1†	--	--	--
Teal, Blue-wing	2	--	--	--	--	--
Duck, Wood	6	--	--	--	--	--
Duck, Lesser Scaup	75	--	Pair	--	--	--
Merganser, Hooded	1	--	--	--	--	--
Vulture, Turkey	5	2	5	C.	4	P.
Vulture, Black	4	3	3	F. C.	--	--
Hawk, Sharp-shin	--	--	--	1	1	--
Hawk, Coopers	--	--	1	1*	--	--
Hawk, Red-tailed	--	--	--	2	--	--
Hawk, Red-shouldered	4	--	--	--	--	--
Hawk, Broad-wing	--	--	--	1	--	--
Hawk, Duck	Pair†	--	--	--	--	--
Hawk, Sparrow	--	--	1	2	1	P.
Eagle, Bald	1X	--	--	--	--	--
Osprey	1	--	--	--	--	--
Bob-white	2	5	9	7	6	--
Rail, King	1	3†	1†	--	--	--
Rail, Sora	--	5	3	--	--	--
Gallinule, Florida	3	--	--	--	--	--

Gallinule, Purple	--	1	1	--	--	--
Coot, American	A.	2	1	--	--	--
Plover, Semipalmated	--	6	1	--	--	--
Kildeer	2	10	8	F. C.	F. C.	P.
Yellowlegs, Lesser	--	4	--	--	1	1
Yellowlegs, Greater	--	8	8	--	--	--
Sandpiper, Spotted	--	2	2	3	1	P.
Sandpiper, Solitary	--	12	7	3	6	P.
Sandpiper, Least	--	25†	50†	4†	--	--
Phalarope, Wilson's	--	5†	--	--	--	--
Gull, American Herring	20	--	--	--	--	--
Tern, Black	1	--	--	--	--	--
Tern, Least	--	--	2	--	--	--
Dove, Mourning	7	14	16	C.	C.	P.
Cuckoo, Yellow-bill	--	2	1	6	2	--
Owl, Barn	--	--	--	--	2	--
Owl, Screech	1	--	--	1	--	--
Owl, Great Horned	2	--	--	1	--	--
Owl, Barred	1	--	--	--	--	--
Chuck-wills-widow	--	--	1	3*	--	--
Whip-poor-will	1	--	--	4	1	--
Nighthawk	--	3	1	2	3	--
Chimney Swift	C.	3	11	C.	C.	P.
Hummingbird, Ruby-throat	2	2	1	3	2	--
Kingfisher	1	2	3	1	2	--
Flicker	F. C.	3	14	2	C.	P.
Woodpecker, Pileated	5	--	--	1	2	--
Woodpecker, Red-bellied	F. C.	1	1	3	3	--
Woodpecker, Red-headed	C.	2	13	6	F. C.	--
Woodpecker, Hairy	2	2	--	1	1	P.
Woodpecker, Downy	F. C.	3	7	2	4	--
Kingbird	2	11	15	4	2	--
Flycatcher, Crested	F. C.	8	15	F. C.	C.	P.
Flycatcher, Least	--	--	--	--	--	P.
Flycatcher, Acadian	--	2	3	3	F. C.	--
Phoebe	2	--	--	3	C.	P.
Wood Pewee	1	8	16	7	1	P.
Horned Lark, Prairie	--	Pair	6	--	--	--
Swallow, Rough-wing	C.	2	8	8	C.	P.
Swallow, Barn	6	--	--	--	--	P.
Martin, Purple	F. C.	2	6	F. C.	C.	--
Blue Jay	F. C.	25	36	C.	C.	P.
Crow	C.	1	3	C	F. C.	P.
Chickadee, Car.	F. C.	4	2	F. C.	C.	--
Titmouse, Tufted	F. C.	4	13	F. C.	C.	P.
Nuthatch, White-br.	1	--	2	1	1	--
Wren, House	--	--	--	--	--	2†
Wren, Winter	--	--	--	--	1	--
Wren, Bewick	5	--	--	C.	1	--
Wren, Carolina	C.	8	15	C.	C.	P.
Wren, Sh.-bill Marsh	--	--	--	--	1	--
Wren, Long-bill Marsh	--	--	2	--	--	--
Mockingbird	--	10	50	C.	F. C.	P.
Catbird	3	4	5	6	C.	P.
Brown Thrasher	4	2	20	F.C.	F. C.	P.

Robin	F. C.	6	25	F. C.	F. C.	P.
Thrush, Wood	C.	16	30	F. C.	C.	P.
Thrush, Olive-backed	--	5	3	2	3	--
Bluebird	3	5	10	C.	C.	P.
Gnatcatcher	C.	2	12	F. C.	F. C.	P.
Kinglet, Ruby-crown	--	--	--	--	--	P.
Waxwing, Cedar	F. C.	10*	24	3 fl.	2 fl.	--
Shrike, Loggerhead	--	4	6	--	--	--
Starling	--	--	--	6*	F. C.	P.
Vireo, White-eyed	C.	6	11	C.	C.	P.
Vireo, Yellow-throated	F. C.	4	2	F. C.	F. C.	--
Vireo, Philadelphia	--	1	--	--	--	--
Vireo, Red-eyed	F. C.	8	20	A.	C.	P.
Vireo, Warbling	2	2*	2*	1	--	--
Warbler, Black and White	F. C.	3	--	2	6	P.
Warbler, Prothonotary	A.	6	6	6	3	--
Warbler, Worm-eating	--	--	--	1	1	--
Warbler, Blue-winged	--	--	--	4	--	--
Warbler, Tennessee	F. C.	8	2	--	4	--
Warbler, Nashville	--	--	--	--	1	--
Warbler, Parula	C.	4	3	4	--	--
Warbler, Yellow	2	--	--	3	4	P.
Warbler, Black-thr. Blue	--	--	--	--	3	--
Warbler, Magnolia	--	2	--	--	1	P.
Warbler, Cape May	--	--	--	1	--	--
Warbler, Myrtle	C.	--	--	--	A.	P.
Warbler, Black-thr. Green	3	--	--	2	2	--
Warbler, Cerulean	6	--	--	2	2	--
Warbler, Blackburnian	--	--	--	--	3	--
Warbler, Yellow-throat	--	--	--	--	2	--
Warbler, Sycamore	F. C.	5	4	5	--	--
Warbler, Chestnut-sided	2	5	--	--	2	P.
Warbler, Bay-breasted	--	--	--	--	3	--
Warbler, Black-poll	--	2	--	8	2	--
Warbler, Pine	--	--	--	1	--	--
Warbler, Prairie	--	--	--	8	--	--
Warbler, Palm	4	--	--	--	--	--
Warbler, Kentucky	C.	3	7	8	C.	P.
Warbler, Hooded	C.	8	6	7	C.	--
Warbler, Mourning	--	--	3	--	--	--
Oven-bird	1	--	--	1	2	P.
Water-thrush, Louisiana	C.	--	1	3	C.	P.
Yellow-throat, Maryland	6	8	21	C.	A.	P.
Chat. Yellow-breast	2	7	18	4	4	P.
Redstart	C.	15	15	2	6	P.
Bobolink	--	30	6	--	Flock	--
Meadowlark	2	50	45	F. C.	C.	P.
Redwing Blackbird	A.	50	30	8	F. C.	P.
Oriole, Orchard	3	4	20	6	2	--
Oriole, Baltimore	4	5	3	2	1	--
Grackle, Bronzed	C.	13	18	C.	--	--
Grackle, Purple	--	--	--	--	C.	P.
Cowbird	4	1	7	3	C.	P.
Tanager, Scarlet	1	1	--	1	3	P.
Tanager, Summer	6	2	8	F. C.	C.	P.

Cardinal	C.	16	40	A.	C.	P.
Grosbeak, Rose-breasted	3	1	--	3	3	--
Bunting, Indigo	4	16	25	A.	F. C.	--
Dickcissel	--	20	17	--	--	--
Goldfinch	4	30	8	C.	C.	P.
Towhee	4	--	--	F. C.	C.	P.
Sparrow, Savannah	--	--	2	--	?	--
Sparrow, Grasshopper	--	--	--	1	C.	--
Sparrow, Vesper	--	--	--	--	1	--
Sparrow, Bachman's	--	--	--	3	--	P.
Sparrow, Chipping	3	--	3	C.	F. C.	P.
Sparrow, Field	2	--	4	C	C.	P.
Sparrow, White-throated	10	--	--	1	A.	P.
Sparrow, Lincolns	--	--	--	2*	1	--
Sparrow, Swamp	--	--	--	--	2	--
Sparrow, Song	--	--	--	--	C.	P.
Total number of species (154)	94	83	85	94	101	58

Johnson City list was compiled by Bruce P. Tyler and Robert B. Lyle in the vicinity of that town, and represents the northeast corner of Tennessee.

The Knoxville list was made chiefly in the vicinity of H. P. Ijams' "Island Home" place on the Tennessee River, above Knoxville, including the low wooded island. Also took in a canoe trip of twelve miles down the French Broad River past "Paint Rock" to "Island Home." Fourteen members participated. The list was prepared by H. P. Ijams and Brockway Crouch.

Nashville list was compiled by twenty-four members on forty-mile drive to the lower Harpeth valley. Headquarters was made near Stringfellow bridge, where high cliffs, fringed with cedar and pine, joined rich bottom lands and wooded pastures across the Harpeth River. Two others visited Radnor Lake and Cumberland River bottoms.

The Memphis list of May 8 was compiled by a group of twenty-one, with headquarters at Lake View, on Horn Lake, twelve miles south of Memphis. Through wooded bottoms, in Tennessee, toward Horn Lake Creek; in the afternoon to barrow pits back of Mississippi River levee, in Mississippi. May 15, visited same localities as above, with party of six. In the afternoon visited Raleigh, ten miles northeast of Memphis. Lists were prepared by Ben B. Coffey. See further notes in Round Table.

The Reelfoot Lake list was made by about twenty members from Nashville, ten from Memphis and one from Dyersburg. The visit to this unique body of water, in the northwest corner of the State, with its austroriparian environment, was voted as perhaps the most interesting excursion ever taken by the T. O. S. On the afternoon of the 23rd, a boat trip was made southward to Mud Basin, where a Bald Eagle nest was visited. It was built in a cypress, growing in cut-over ground, and although a white-headed parent was sitting on a limb above the nest, it was found that they had not laid as yet. Later, on the open water of the lake, the party viewed large flocks of Cormorants,

BIRD BANDING; SOUTHWEST AREA OF NASHVILLE.

By MRS. F. C. LASKEY.

The following report covers nine months of trapping birds for banding purposes, in co-operation with the Biological Survey, Washington, D. C., by Mrs. Arch Cochran and the writer, assisted by Norman Tompkins. Four stations have been established: (a) Dripping Rock is at the home of Mrs. Cochran in Belmont Heights, a closely built-up suburb of Nashville; (b) Blos-

(Continued on Page 27)

FACTS ABOUT EAGLES IN TENNESSEE

A. F. GANIER
NASHVILLE

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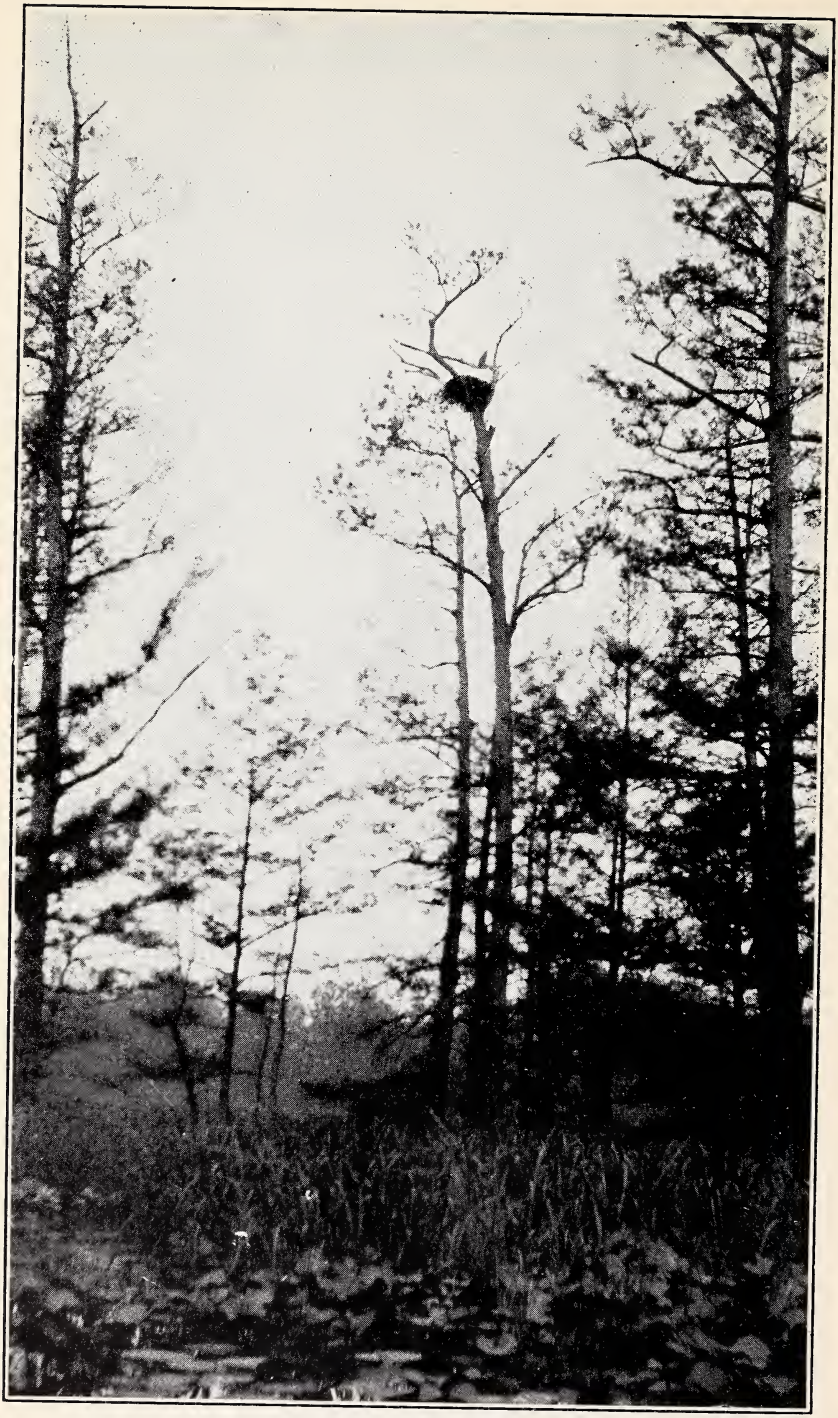

Fig. 1. Nest of the Bald Eagle in the Reelfoot Lake "Scatters."

FACTS ABOUT EAGLES IN TENNESSEE[1]

A. F. GANIER
NASHVILLE, TENNESSEE

Two species of eagles are found in the United States and both of these occur in Tennessee. Most of those to be seen in West Tennessee are Bald Eagles, while most of those occurring in East Tennessee are Golden Eagles. The so-called "Black Eagle" is merely the immature Bald Eagle, since this species does not fully attain its white head and tail feathers until it is four years old.

The Bald Eagle is very fond of dead fish and will also catch uninjured ducks and geese. For this reason it is usually found near large bodies of water, such as Reelfoot Lake, the Mississippi River, the Gulf of Mexico, and the Atlantic coasts.

The Golden Eagle is a bird of mountain fastnesses, where there are high cliffs in which it may establish its aerie. In Tennessee, a few pairs have been observed at nesting time in the Cumberland Mountains, the Great Smoky Mountains, and in the Unaka chain. It is a very rare resident now at best; there probably being not more than a dozen nesting pairs within the state and as yet none of their nests have been found. It is probable that these few pairs, and as many more in adjacent mountainous areas, are the only ones remaining east of the Rocky Mountains. In winter and early spring, these eagles forage far from their summer homes and are sometimes killed or trapped in Middle Tennessee. Some twenty-five occurrences of this species in this area have come to the notice of the writer during the past fifteen years. It is probable that their numbers are augmented by a few birds from the Northwest and even western Canada. During February and March, they take a few lambs and are also partial to tame ducks and geese. Rabbits and woodchucks, however, are the most staple items of food the year around. In their mountain homes, they capture very young goats and also small fawns. A good percentage of their food consists of carrion, to which they are guided by Turkey Vultures whom they whip off until they have had their fill.

The Golden Eagle is our largest, strongest, and handsomest bird of prey. He is by no means so well known as the Bald Eagle. This latter bird is fairly common along the Atlantic seaboard and for this reason is usually pictured as our National Bird.

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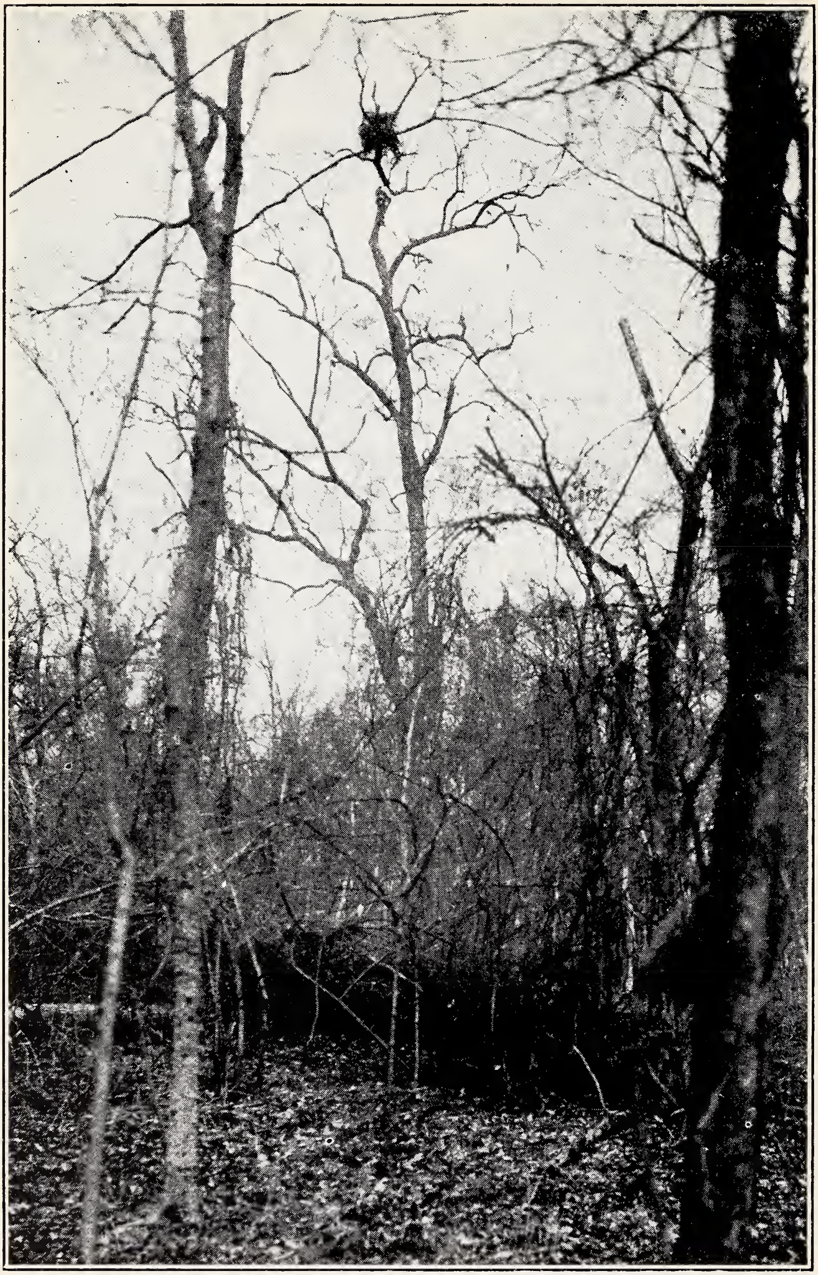
[1] Read before the Tennessee Academy of Science at the Nashville meeting, November 29, 1930.

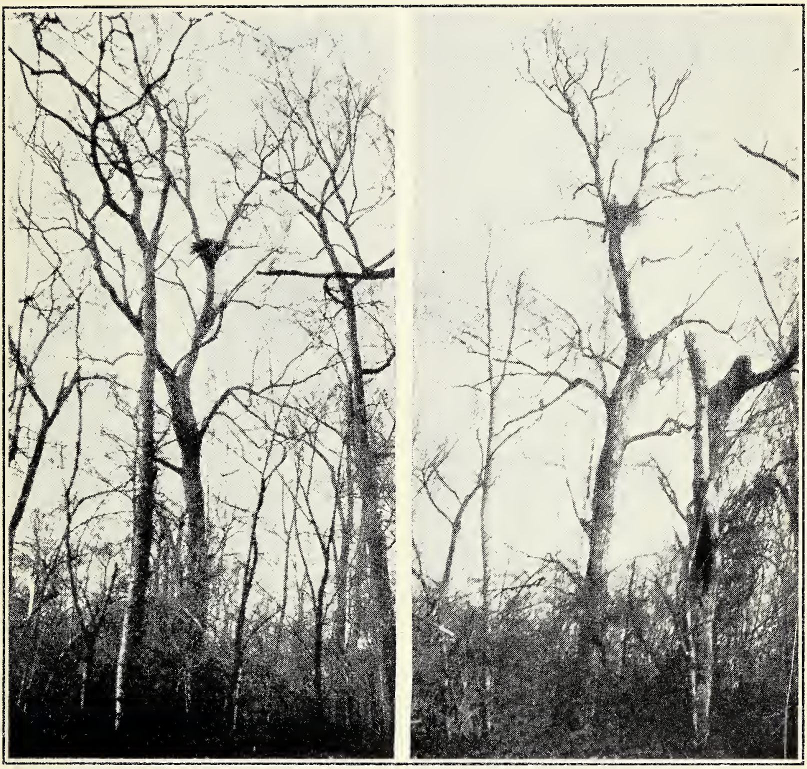


Photograph by B. B. Coffey.

Fig. 2. Climbing to a nest of the Bald Eagle in the Mississippi River Swamp Country. The rim of this eyrie was one hundred three feet from the ground. The nest held young birds, the eggs having been laid about Christmas time, 1929.

The nest of the Golden Eagle is usually placed on an inaccessible ledge of a high cliff and consists of a large mass of sticks, warmly lined with bark, corn stalks, hair, and other soft materials. Two, very rarely three, large white, brown-spotted eggs are laid in February or early March.

The Bald Eagle, as a resident of Tennessee, is equally rare. So far as is now known, there are only three or four pairs nesting at Reelfoot Lake and perhaps one or two pairs nesting in swamps along the Mississippi River. Three pairs nest a few miles south of Memphis, in Arkansas, where they are protected on the "island" in Horseshoe Lake, which is the preserve of a hunting and fishing club. As a nesting bird in Tennessee, they are nearing extinction. Rigid protection should be given especially to those on Reelfoot Lake.

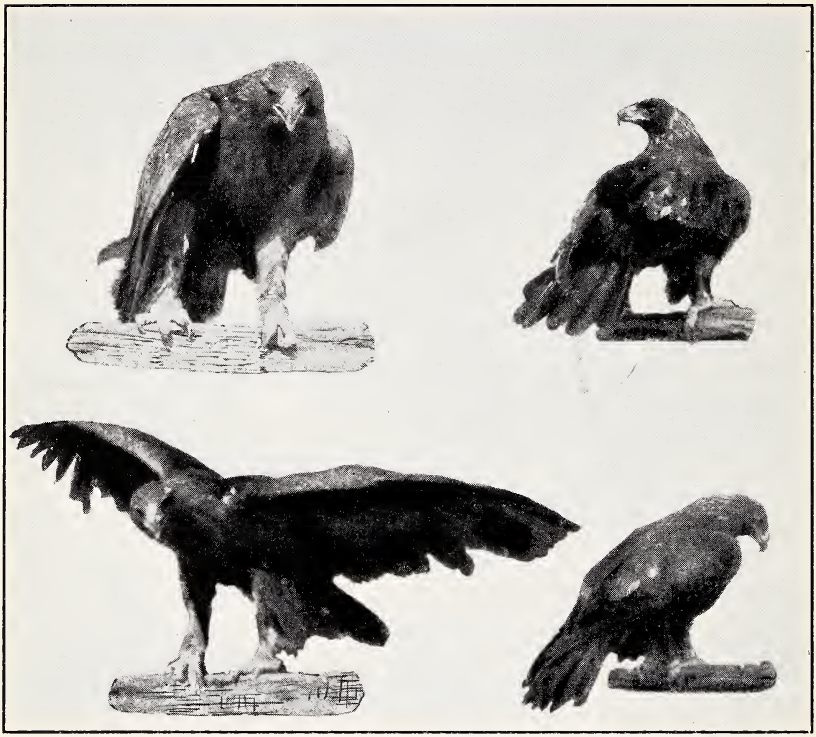


Photographs by Coffey and Ganier.

Fig. 3. Two nests of the Bald Eagle near Memphis. They were built in giant oak trees and had been in use for years. Each nest held two large young birds.

During the fall and winter, many Bald Eagles come from frozen northern lakes and rivers and join the eagles which nest on Reelfoot Lake. For this reason, hunters believe that the Bald Eagle is common on the lake, whereas this is only true during the fall and winter season. At that time they render themselves useful in picking up dead and injured ducks in the wake of the hunter. They also keep the lake free of dead fish, snakes, turtles, *et cetera*.

In Alaskan waters where Bald Eagles are still numerous, they have not infrequently been observed to catch uninjured ducks. However, in this state they much prefer the ever present Coot, which they can readily catch and easily skin. But surely our few remaining eagles are entitled to a duck occasionally, when our sportsmen have been in the habit of killing twenty-five per day and often too, in addition, the twenty-five which the law allows their guide. Hunters who accuse the eagles of being seriously destructive to duck and fish are either misinformed or are trying to justify themselves for the despicable act of shooting eagles. Due to relentless persecution and the supposed glory which comes from having killed an eagle, this species, formerly found generally distributed all through the interior of the United States, is now practically exterminated within that area. Aside from



Photographs by Dr. H. A. Vaughn.

Fig. 4. The Golden Eagle, after it had fully recovered from nearly fatal gunshot wounds. Dr. H. S. Sanborn took care of this eagle during the five months of its convalescence. It escaped in November, 1930, and has not been heard from since.

a score of breeding pairs in the Mississippi Valley and scattered pairs along the five Great Lakes, the Bald Eagles has been wiped out within this portion of our country.

Realizing that steps were necessary to prevent the total extinction of the bird, chosen for our National Emblem, a bill has recently been presented in Congress making it illegal to slaughter these splendid birds.

The Bald Eagle builds its nest in the top of some large tree; usually the largest oak, cypress, or elm that can be found. Such trees are almost impossible to climb. The eggs, two and sometimes three in number, are laid, in this state, during January and February. They are perfectly white and lie in a nest warmly lined with soft materials. These nests are used year after year and, being added to each season, frequently assume large proportions. One, I climbed to on March 9th, 1930, was more than four feet in depth and over five feet wide. At that time it held two young eagles nearly as large as their parents.

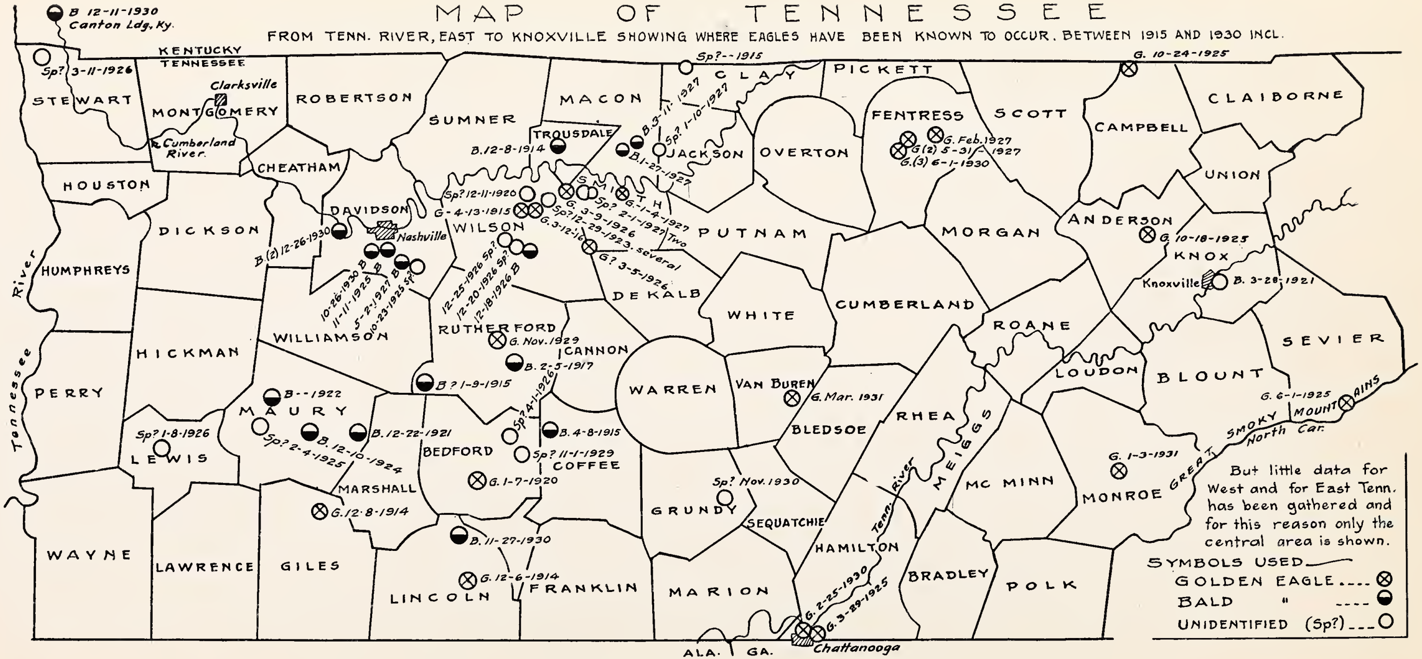
Some general remarks applying to both species of eagles may be of interest. Mature Bald Eagles, i. e., those four or more years old, are readily distinguished by the feathers of their head and tail, these being entirely white. Bald Eagles younger than this are blackish brown all over, but they have considerable whitish markings about their body. With the Golden Eagle, the head and neck are tawny (golden) brown while the balance of their plumage is a rich chestnut brown. The inner third of the tail is ashy white and, in immature birds, there is a large whitish spot under each wing. The surest way to tell the species apart is by their legs. Those of the Bald Eagle are bare from the knee down while the legs of the Golden Eagle are covered by feathers entirely down to the toes like those of an owl.

Stories about eagles attacking human beings are almost invariably without foundation. The Golden Eagle, on sighting a person, will soar upward until he becomes but a speck in the sky. Even when his nest is visited, he flies silently away and remains at a great distance while the intruder is present. The Bald Eagle is less shy but has never been known to attack a man climbing to its nest. They soar at a safe distance overhead and do nothing more violent than utter an annoyed note of protest. Tales about eagles having carried off children are equally without foundation. Ornithologists for more than a century have tried to secure positive evidence to substantiate these old-time tales, but without success. Many such stories have been traced back to their source and none have been found to be true. The eagle has great difficulty in lifting its ten to twelve pounds of weight into the air from level ground. In picking up a rabbit, a dead fish, or an injured duck, it does not alight. After a lamb or goose is killed, the eagle alights and eats what it requires on the spot.

Another popular fallacy is the supposition that young eagles, at the time of leaving the nest, are much smaller than the adults and that they eventually grow to a much greater size. As a matter of fact, when eagles take their first flight they have a wing spread of about

MAP OF TENNESSEE

FROM TENN. RIVER, EAST TO KNOXVILLE SHOWING WHERE EAGLES HAVE BEEN KNOWN TO OCCUR. BETWEEN 1915 AND 1930 INCL.

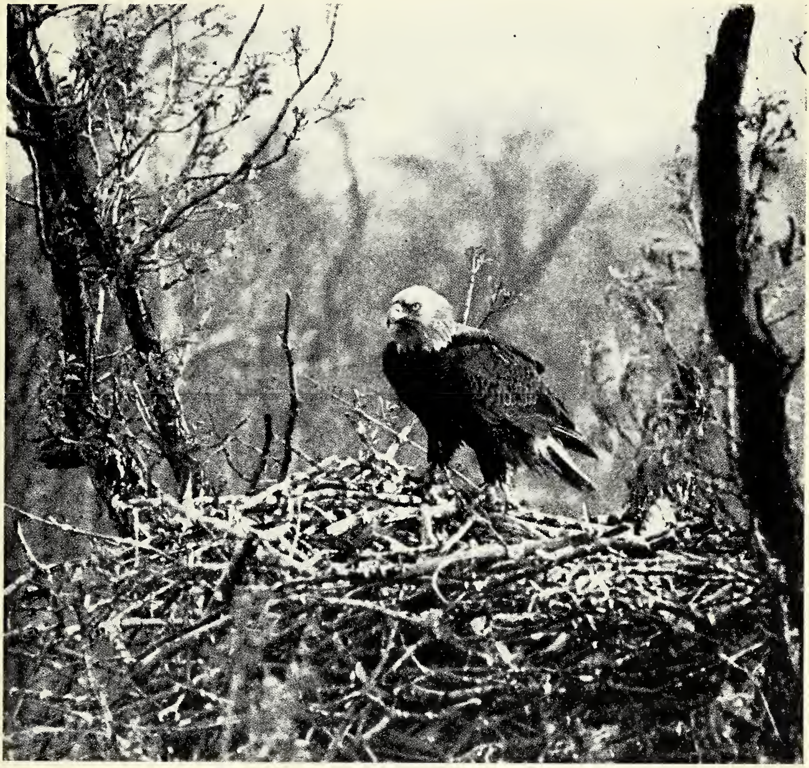

B 12-11-1930
Canton Ldg, Ky.
KENTUCKY
TENNESSEE
Sp? 3-11-1926
STEWART
Clarksville
MONTGOMERY
Cumberland River.
ROBERTSON
SUMNER
MACON
TROUSDALE
B. 12-8-1914
B. 3-11-1927
Sp? 1-10-1927
B. 1-27-1927
Sp?--1915
CLAY
JACKSON
PICKETT
OVERTON
FENTRESS
G. Feb. 1927
G(2) 5-31-1927
G.(3) 6-1-1930
SCOTT
G. 10-24-1925
CAMPBELL
CLAIBORNE
UNION
HOUSTON
CHEATHAM
DAVIDSON
Nashville
B.(2) 12-26-1930
10-26-1930 B
11-11-1925 B
5-2-1927 B
10-23-1925 Sp?
Sp? 12-11-1920
G-4-13-1915
WILSON
SMITH
G. 3-9-1926
Sp? 2-1-1927
G.-1-4-1927
Sp? 12-29-1923. several
Two
G. 3-12-16
G? 3-5-1926
12-25-1926 Sp?
12-20-1926 Sp?
12-18-1926 B
PUTNAM
MORGAN
ANDERSON
G. 10-18-1925
KNOX
Knoxville
B. 3-28-1921
DICKSON
HUMPHREYS
DE KALB
WHITE
CUMBERLAND
ROANE
SEVIER
HICKMAN
WILLIAMSON
RUTHERFORD
G. Nov. 1929
CANNON
B. 2-5-1917
B? 1-9-1915
Sp? 4-1-1926
WARREN
VAN BUREN
G. Mar. 1931
LOUDON
BLOUNT
G. 6-1-1925
SMOKY MOUNTAINS
GREAT
North Car.
PERRY
B--1922
MAURY
Sp? 2-4-1925
B. 12-10-1924
B. 12-22-1921
BEDFORD
B. 4-8-1915
Sp? 11-1-1929
COFFEE
G. 1-7-1920
RHEA
BLEDSOE
MEIGS
MC MINN
G. 1-3-1931
MONROE
Sp? 1-8-1926
LEWIS
MARSHALL
G. 12-8-1914
Sp? Nov. 1930
GRUNDY
SEQUATCHIE
Tenn. River
HAMILTON
WAYNE
LAWRENCE
GILES
B. 11-27-1930
G. 12-6-1914
LINCOLN
FRANKLIN
MARION
G. 2-25-1930
G. 3-29-1925
Chattanooga
BRADLEY
POLK
ALA.
GA.
Tennessee River

But little data for West and for East Tenn. has been gathered and for this reason only the central area is shown.

SYMBOLS USED
GOLDEN EAGLE ---- ⊗
BALD " ---- ◒
UNIDENTIFIED (Sp?) --- ○

six feet six inches while the largest old birds that have been measured exceed this by little more than a foot. These measurements may be compared with those of the Red-tailed Hawk, our largest Hawk, which presents a wing spread of from three feet and ten inches to four feet and two inches. This is approximately two feet less than that of the smallest eagles. Like other birds of prey, the female eagle is about ten per cent larger than the male.

The nesting period of eagles is longer than that of any other native bird. One or two days elapse between the deposition of each egg. These must be incubated for thirty-five days before they hatch. The young are covered with thick, white down for some weeks before they begin to acquire their regular feathers. It requires nearly three months for young eagles to develop to the point where they can fly from the nest site. They flap and otherwise try out their wings for nearly a month before they trust themselves to flight.



Photograph by Frances H. Herrick.

Fig. 6. The Male Bald Eagle at the Nest. Published through the courtesy of Dr. Frances H. Herrick.

I wish to close with the plea that no more eagles be killed within the State of Tennessee and that our best citizens use their influence to protect such few of these splendid birds as may still be captured or threatened.

somdell, the home of Mrs. Laskey, is two miles due south in a rather open, sparsely built suburban section; (c) Bellemeade station is four miles farther to the southwest, in a fairly well built up section near the Country Club, and where old oaks and other forest trees abound, and (d) Radnor Lake station, which is seven miles southeast of Dripping Rock, on the shores of an eighty-five-acre artificial lake, surrounded by wooded hills.

In addition to the birds reported in the list, there have been several recaptures of migrants, including Robins, Brown Thrashers and Catbirds, returning to their nesting places of last year in the gardens of Mrs. Cochran and Mrs. Laskey. Of the 869 birds listed as "repeats," which means they have been retrapped within three months of the banding date, each has repeated at the same location where banded, none apparently having visited any of the three other stations in operation.

The following is a list of the 42 species of birds banded at stations a, b, c, and d, the number banded at each station being given in that order. "R" indicates the number of repeats. Woodcock, 1, 0, 0, 0; Screech Owl, 0, 0, 1, 0; Flicker, 2, 6, 0, 0, R5; Red-bellied Woodpecker, 0, 1, 2, 0; Red-headed Woodpecker, 0, 0, 1, 0; Hairy Woodpecker, 0, 1, 3, 0; Downy Woodpecker, 0, 7, 1, 0, R7; Hummingbird, 1, 0, 0, 0; Blue Jay, 8, 0, 2, 0; Carolina Chickadee, 12, 6, 1, 2, R41; Tufted Titmouse, 5, 2, 3, 1, R14; White-breasted Nuthatch, 0, 0, 3, 0, R4; Winter Wren, 2, 0, 0, 0; House Wren, 0, 1, 0, 0; Bewick Wren, 0, 5, 1, 0, R10; Carolina Wren, 2, 1, 0, 2, R12; Indigo Bunting, 0, 1, 0, 0; Summer Tanager, 0, 1, 0, 0; Mockingbird, 4, 4, 1, 0; Catbird, 13, 4, 0, 0; Brown Thrasher, 5, 11, 2, 0; Robin, 65, 67, 2, 10, R2; Hermit Thrush, 8, 0, 0, 0; Veery, 0, 1, 0, 0; Wood Thrush, 25, 0, 0, 0; Bluebird, 0, 11, 0, 0; Cedar Waxwing, 1, 0, 0, 12; Red-winged Blackbird, 0, 0, 0, 3; Baltimore Oriole, 1, 0, 0, 0; Bronzed Grackle, 40, 3, 17, 0, R2; Cardinal, 16, 6, 2, 17, R6; Towhee, 1, 2, 0, 7, R2; Junco, 0, 4, 0, 0, R2; Savannah Sparrow, 0, 7, 0, 0, R1; White-crowned Sparrow, 0, 19, 0, 0, R28; White-throated Sparrow, 0, 3, 0, 3, R2; Chipping Sparrow, 0, 9, 0, 0, R85; Field Sparrow, 0, 133, 2, 0, R603; Swamp Sparrow, 0, 2, 0, 10, R2; Lincoln's Sparrow, 0, 2, 0, 0, R3; Song Sparrow, 0, 8, 1, 30, R14; Vesper Sparrow, 0, 1, 0, 0; total birds banded, 683, repeats, 869, species 42.

Nashville, Tenn., May 1, 1932.

* * *

SPRING BIRD CENSUS FOR TENNESSEE

(Continued from Page 16)

some flying and others sitting on the dead trees, most of them being migrating birds. A flock of lesser Scaup, many Coots, a number of Herring Gulls and Great Blue Herons, American Bitterns, an Osprey and two American Egrets were among the most interesting birds of the open water. The next morning early twelve boats carried the group up Bayou du Chien for about three miles, where a portage was made into Otter Basin and the inundated cypress swamp just south of the Kentucky line. Here a heronry was visited and a pair of Duck Hawks observed, particulars of which will be found in the Round table on page 27. The trees in the swamp resounded with a medley of avian voices and the Prothonotary Warblers, which fed near the water's edge among the "elbow bushes," were a constant source of interest. At Samburg the Memphis party tarried a few hours, adding birds to the list from the south end of the lake. Final list was prepared by G. R. Mayfield.

(We regret that lack of space does not permit our giving the names of all of our members who assisted with these lists.—Eds.)

THE ROUND TABLE

THE SEASON, AT MEMPHIS: On March 6 scouts saw at least ten Prairie Horned Larks at the municipal airport, six miles southeast of town. I revisited this field with the following results: March 20, four to five pairs; March 27, four pairs; April 9, two (watched one sing, high in the sky, then drop to earth) April 20, one male; May 7, two; May 15, three or four. On March 20 we were asked to stay off the field, so no other search was made for nests, and all birds were seen from the road. Perhaps we may be able to recognize young along the roadside soon. While no nests have been found, the above late dates would seem to prove that it is a breeding species. Cedar Waxwings have been common since the first of February, and although often seen in flocks of twenty to two hundred, there has so far been no great May wave of them, as is usually the case when they are uncommon in winter. Wilson's Snipe, White-throated Sparrows, and Myrtle Warblers were last seen on May 1st and were the last of the winter residents. Migrants generally arrived a few days later than the earliest recorded dates, although the Wood Thrush and Kentucky Warbler were as much as nine days late. The Black-throated Green Warbler, generally heard on all early spring trips, was not recorded until April 15th. The Blackburnian escaped detection until May 13 (due April 5), and the Ovenbird was not recorded this spring. The first time I have seen House Wrens here was on April 17; two at widely separate locations. The Philadelphia Vireo (one on May 8) and Mourning Warbler (three on May 15) were new to me, but may be more common in the wooded bottoms during migration than supposed.

A series of shallow barrow pits, just south of the Mississippi River levee and a mile below the Tennessee line, has yielded some interesting records. Least Bittern, May 7; Wilson's Phalarope, a single and two pair, May 8; Purple Gallinule, May 8, 10 and 15. Long-billed Marsh Wrens have been seen here as well as straggling Coots and Ducks. The most interesting species observed here was an Eastern Glossy Ibis, which was seen first on May 15 and was still present on May 21. The bird appeared dark green and brown, and we afterward approached to a nearer position by crawling to the top of the levee at a point opposite and studied it at our leisure. The wings and back were glossy green and the remainder a rich, reddish brown, which showed up gloriously in a good light. No white was present on the face. It took flight leisurely, flapping slowly like a Great Blue Heron, then coasting. It flew with neck outstretched unlike the herons which fly with heads drawn in and neck slightly S-shaped. On May 1, I was agreeably surprised to find in two adjacent pits about ten nests of the Pied-billed Grebe floating in the shallow water among last year's growth of dead weeds. The adults, if they were all present, kept well out of sight, for on none of my several trips were more than four seen. One of the nests, containing seven eggs, hatched on May 1, and other young about may have been several days old. During the three weeks following it has been very dry and the water level has dropped appreciably, leaving it very shallow for the young ones. A King Rail's nest was found here on May 7, at which time it held three eggs; on a later date it was found to contain nine eggs, but the parent was absent. Sora Rails are often flushed, but it is unlikely they will breed this far south. Earl Henry has recently collected both the Least and Semipalmated Sandpipers here. Since they are hard to distinguish afield, it is probable that my reports include some of the latter along with the Least.—Ben B. Coffey, Memphis, Tenn.

DUCKHAWKS AT A REELFOOT HERONRY: Perhaps the high light of our trip to Reelfoot Lake, on April 23-24, was the finding of a pair of Duck

Hawks (Falco peregrinus anatum). They were first sighted a few hundred feet south of where a few Great Blue Herons and one or two American Egrets were nesting amid the tops of an extensive growth of virgin Bald Cypress trees in the big swamp at the north end of the lake. Their presence was not suspected at such a locality, but when their vigorous characteristic flight and their loud "quacking" call revealed their identity our party spent a thrilled half hour watching them. One of the birds lit, with prey in its talons, on top of a cypress snag a few hundred feet from the boats, whereupon Messrs. Coffey, Henry and myself waded through the knee-deep water to get a better view. At 100 feet she left her perch, much disturbed at our presence, and flew about overhead, making great protest. A large cypress, in the top of which was a big cavity, seemed to be the center of her interest, and it is probable that it was this she had chosen for her eyrie and that at the present time it held young.

The heronry, when I last visited it, on April 26, 1919, held about 125 nests of the Great Blue and 75 nests of the Cormorant. A careful count showed, on the present trip, no Cormorants, and only thirteen Heron nests. There is a possibility that the Duck Hawks have been responsible for this decrease. The heronry at the lower end of the Lake was visited by myself on May 29 and an increase was noted in the large number of herons and cormorants nesting at this place. No Duck Hawks were seen here.—A. F. Ganier, Nashville.

MORE REELFOOT NOTES: On May 1st, I re-visited the heronry at the head of the Lake, with some friends. The trip up Bayou du Chien was lovelier than the week before, for the wild wisteria was blooming and the amber waters of Otter Basin were more brilliant with yellow flowered water plants. The same Duck Hawk was screaming from his perch on a dead limb near his eyrie. We did not push through the dense undergrowth to the big cypress trees that held the Great Blue Heron nests, but skirted the edge into a neck of open water where we had a magnificent view of three nests in one tree and two in another. The herons were flying about some and, as we sat very still to watch them, I realized the hawk's cry was getting nearer. He circled the tree once where the nests were and, quicker than a flash, he swooped down near a nest. Instantly a dozen herons rushed to the rescue and one old heron screamed so loudly that the hawk flew away faster than he had come. The herons seemed to spring up from space when the falcon swooped and appeared all ready to lend a helping hand in defense of their colony. Then one heron stationed himself on the topmost limb—perhaps a self-appointed sentinel—and discharged his duty faithfully during the thirty minutes I watched, while his fellows flew about casually as though depending on his vigilance.—Mrs. J. S. Scott, Dyersburg, Tenn.

NOTES FROM KNOXVILLE: The Duck Hawk near Alum Cave, in the Great Smokies National Park, made a successful hatch this year, according to Brockway Crouch, who visited the eyrie in early April. The park wardens are taking a commendable interest in these splendid falcons. The pair which have nested for some years in Paint Rock cliffs, on the French Broad River, were not present when the place was visited on May 1st. Our Field Day of that date found birds somewhat scarcer than usual, our total falling about 8 short of our record of 109 species for the day. Messrs. Mayfield and Ganier came over from Nashville to help with the listing. The Barn Owls were nesting as usual in the hollow sycamore on the island and Crouch aroused them from their mid-day doze to add their names to the list. Careful observations about my place here shows 27 species of birds breeding about the grounds. One of the most interesting finds was my first nest of the Yellow-throated Warbler. It was located in a big pine several hundred feet from the river and held young on May 21st. On May 5th, one of our scouts found a Kildeer's nest with 7 eggs, at the point of hatching; since 4 is the usual maximum number, it is likely that two females layed in this nest. On the night of May 25th, frog hunters shot a Least Bittern, at which late date it might not be just a migrant. A Black-crowned Night Heron was recently shot here, too; since we see them throughout the summer, they are believed to breed. On June 7, a Kentucky Warbler was observed feeding a young Cowbird in its nest.—H. P. Ijams, Knoxville, Tenn.

HOUSE WRENS AT JOHNSON CITY: On May 1st I had the unusual experience of observing a pair of House Wrens here. This recalls to my mind an experience with these birds which occurred here one spring a few years ago, when a lone male stayed in my yard for about three weeks. Hoping to have a new breeding bird about the premises I at once put up a special nest box in order that "Mrs. Jennie" would be pleased should she put in her appearance. The male sung continuously and seemed entirely pleased with the surroundings. At that time a pair of Bewicks Wrens were about to bring forth a brood of young from a nest under the sleeping porch and in another they were completing a set of eggs. One day it became evident that relations between the two kinds of wrens had become strained to the breaking point and war to the death ensued. Both the Bewicks Wren nests were destroyed and the young killed and after several days fighting all of the birds disappeared, never to return. I mourn for my Bewicks still, since they had come regularly every year and we were much attached to them. —Bruce P. Tyler, Johnson City. NOTE: While the House Wren has never been reported as nesting in Tennessee, we have read many unfavorable reports about its nest and egg-destroying habits in the North. Our two breeding speices, the Bewicks and the Carolina, are entirely peaceable toward each other and toward other birds, and we think it would be best to discourage the House Wren from extending its breeding range in this direction.—Eds.

THE ANNUAL SPRING FIELD DAY of the T. O. S. was held on the lower Harpeth River, near Stringfellow Bridge, on Sunday, May 15. Here massive cliffs tower above the calm little river, rising in places more than 250 feet above the water and offering fine nesting sites for vultures, owls and Peregrines, although none of the last named species were seen. High up on one of the cliffs is the prehistoric painting of the sun, placed there by the aborigines, just how being quite a mystery. The morning and early afternoon were spent in listing the birds of the area, the detailed list being printed on the first pages of this issue. One of the most interesting finds of the day was that of a Hummingbird sitting on her nest with two eggs, in a sycamore, only six feet above the bridge rail. An excellent lunch had been prepared by the committee, under a spreading beech commanding an excellent view of the cliffs, following which a short business meeting was held and officers elected for the coming year.

EAGLE NOTES: Since Mr. Ganier's article on page 17 went to press, he has succeeded in finding and photographing an occupied nest of the Golden Eagle in Van Buren County, something about which will be published later. The census of eagles in Tennessee, mentioned in our last number, is actively under way and the committee reports much data has already been gathered.

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* * *

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THE MIGRANT

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DEVOTED TO TENNESSEE BIRDS

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THE MIGRANT

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USEFUL HINTS FOR FIELD WORK

By GEORGE R. MAYFIELD

The morning hour is the best time of day to study birds. At this time they are most active in getting food and most lively in song. A quick eye, a keen ear, a deal of patience and a love of nature make up the best equipment for successful field work. In addition to these personal requisites one should have a pair of field glasses, 8-power preferred, for the study of those species which are a bit shy or else feed in the tops of trees.

Color is the best and surest means of identification. If a bird is black, or blue, or red, he can be run down very quickly in Reed's Pocket Guide or Blanchan's Bird Neighbors. If he is brown or mottled the search is more difficult. If a small brown bird with a chestnut crown, look for the Chipping Sparrow; if larger, with white lines over the head and white on the throat, look for the Whitethroat. If brown, with white outer tail feathers, look for the Vesper Sparrow; if small and brown with a pink bill, see if it is a Field Sparrow. The vireos are olive and green with habits that make them somewhat difficult to study closely. But the two white wing bars usually show the White-eyed Vireo plainly to the amateur; the light line over the eye is a good way to spot the Red-eyed Vireo. In short, the more expert one becomes, the quicker he is in selecting that one feature which distinguishes one species from another. It may be a mark ever so small, a color ever so faint, or some characteristic movement, but he learns to look first for this one point and the decision is made. Once mastered, this glance will reveal more than long inspection by an untrained worker.

Next to color, note the exact size of the bird. A large brown bird is not likely to be one of the sparrows and a small brown one is not one of the thrushes. Practice soon enables one to tell to an inch how long a bird is, and this helps to eliminate many of the species similarly marked. Among the warblers, which are so nearly the same length and build, one must have to resort to colors and markings more than any other feature. The place where a bird is feeding usually reveals to an expert the probable identity of a bird. The tops and outer limbs of trees are the feeding grounds for the orioles, vireos and warblers. The trunk and the limbs of trees delight the heart of the Creeper, the Woodpecker and the Nuthatch; the Mocker, the Thrasher, the Catbird and the Sparrow prefer the bushes and the thickets for their nests and their feeding grounds; in the meadows and the fields are the Larks, the Bobolinks, the Bluebirds, the Doves and many of the sparrows, while many species are found only in the deep woods away from the eyes of men.

The flight of birds is also a good criterion. Some fly in almost a straight line, such as the Crow, the Grackle, the Oriole and the Vultures. The up and down motion of the Woodpecker is a family failing and is almost a sure sign of recognition. Some flap their wings a great deal in flight, such as the Jay, the Grackle, the sparrows and the Mocker. Some birds are high flyers, like the Red-tailed Hawk, the water birds and most birds on a long migration; still other birds skim along the ground, rarely getting but a few feet above terra firma. The Cedar Waxwings fly around in compact flocks, with movements almost as perfect as the evolutions of a West Point cadet corps; the Creeper, the woodpeckers and other species prefer to be alone or else find that two make up company and the rest are undesirable citizens. Even the walk of birds is evidence enough to an expert in detecting the species. The stately step of the Grackle, the swift marathon rush of the Quail, the rapid two-step of the sparrows and the nervous walk of the Kildeer are just as characteristic as their coloring.

The quickest of all means of identification is the song of birds, but it takes longest to get this down to accurate results. To the practiced ear, however, the note of a bird becomes as much a test as the coloring of the bird. One increases his efficiency many times by this means, as he may detect the presence of a new bird or a rare bird by a different note. He can thus cover a much larger territory by using both eye and ear. But it must not be forgotten that it requires infinite patience to master the fifty-seven different varieties of the Robin's song, the many calls of the Wren, and the varied notes of the sparrows.

Let the student begin with a few common species and learn to recognize them instantly; add to these one by one the new species, taking care in ea case to master the colors, the markings and the habits of the bird, so that he can identify the bird at once. When he has mastered twenty species in this way he is likely to become an enthusiastic student of bird life.

And lastly, by all means keep a notebook, one that you can carry in your pocket afield as well as kept readily accessible at home. In this book write down the birds as you find them, interesting things you have observed, data on nests you examine, etc., and don't forget to include the dates, for these will make your notes useful to others, as well as to yourself.

Nashville, Tenn., April, 1920.

A SUMMER VISITOR

"DRIPPING ROCK" NOTES

By MRS ARCH COCHRAN

One morning just before dawn while the light was so meager that moving objects could scarcely be seen, something in apparent distress was noticed in the deepest part of the fish pond. A rush for a dip net, that should have been within reach, but never is when needed most, gave the thing time to reach shore safely. While moving slowly toward it in the shadow of the shrubbery, the wet creature was seen to run its bill through its feathers, flutter its wings, stretch its neck, again flutter its wings and deliberately return to the water. It swam or rather paddled out two feet from the edge of the pool into the deepest part, where the water is three feet deep, fluttering its wings with the effort and slight distress that a small boy manifests when he first learns to swim, dog fashion. Once more it swam to shore, preened its feathers, fluttered, showered drops of water on the nearby ferns, stretched its neck as though exercising for high C, rested a moment, then back again to the water with its wings flapping water in a thick spray that wet every part of the body except the head. The head was held high in a strained position as though afraid a single drop of water would touch it. There was nothing but awkwardness in the movements of the bird; in fact, it acted as though doing something distasteful and unusual. After the third splashing it remained quietly at the side of the pool, where the shadows of an overhanging shale cliff made it impossible to see anything but a long down curved bill and some curious light and dark markings that were still too wet to define. Without hurry it moved a few steps toward a Royal fern, where the ground is a little moist at all times. Here it stopped, turned its head slightly upward, then quickly jabbed its long bill in the wet ground for whatever it was that attracted it. This was repeated a dozen times, always within an inch or so of the last boring. By this time the light was strong enough and the feathers fluffy and dry enough so that the beautiful markings left no doubt that a Woodcock had come to visit us.

For three months this aristocrat lived with us. Lived in a closely built section of Nashville, in a city lot of less than half an acre, within a stone's throw of a street car line. For the Woodcock it was three months of night-feasts, before-dawn baths and loneliness. For me it was three months of genuine pleasure—pleasure, because being hostess to a true aristocrat is a joy not often brought to me. No bird on the ground ever quite reaches the poise and noble bearing of the Woodcock. The slow dignity of its movements when it skirted the shrubbery, moving from one moist spot to another, was exactly like the slow gracefulness of a bride in a middle aisle. The gentle pressure or pat of its foot as it tested the resistance of the damp ground before trusting its full weight to it, or the repressed eagerness with which it thrust its long bill was more like the slow motion movies than a hungry bird in search of food. Its actions were never hurried, not even when it took flight at the unexpected approach of a visitor. Usually the first knowledge a visitor had of its presence was the whistling of the short primaries as they sounded overhead. It rose gracefully and easily from the dense undergrowth, taking off from the ground without effort and with no apparent haste, swinging around to alight within the boundaries of the hedge-fenced garden, always going from back to front, from front to side, and again returning to the back underbrush when the need arose.

It became accustomed to me and allowed me, after a few weeks, to wor within a few feet of it. Many times it closed its eyes and sank its head, evidently in sleep, yet pruning and weeding went on within arm's reach of it. After two months of daily companionship it could be picked up with both hands forming a basket-like nest, the wings examined and the tail spread, then, when set again on the ground, it would start boring immediately, paying n further attention to us. It could be carried from one place in the garden to another that had been freshly wet for it, and it never gave any manifestation of fear as long as I moved slowly and nervelessly. A quick motion or the chattering of guests brought the whistling wings into immediate play or sent it unhurriedly into the undergrowth, always moving its head and body around so that the offender was kept in full view.

Through June, July and August this friendship grew. Then, one morning during the last week in August, 1931, it made its last round of the garden, taking with it band No. A429378. Now that it is gone, memories of its dignity and gentleness are so great that it is hard not to believe that the curious bathing antics were intentionally set for an hour when no picture and few eyes could ever bear witness to its strange performance.

Nashville, Tenn., June, 1932.

* * *

FALL "MIGRANTS:" We regret to announce that two of our officers are leaving Tennessee and are therefore handing in their resignations. Miss Vera Kearby, our efficient Secretary, and a most loyal member for some years, is returning to Texas, her native State. Mr. Compton Crook, who has for several years served us as Treasurer, is located in Kentucky at present. The Society is much indebted to these offices for their work in its behalf, and we shall miss their good company on field days and at meetings.

HUMMINGBIRDS

By H. S. VAUGHN

The smallest of all the feathered tribe is the Hummingbird, which derives its name from the sound made by its wings while in flight. There are some 600 species and subspecies of this bird, whose habitat is America and its adjoining islands. Only 17 varieties are found in North America, and but one of these ranges east of the Mississippi River, this being our Ruby-throated, with which we are all familiar. This bird has possibly the longest range of any of its kind, extending, as it does, from Canada to Central Mexico. The largest number of Hummers are to be found about the Tropic of Capricorn, where they fairly swarm, growing fewer as you go north or south from this point.

The length of these birds varies from 1¼ to 8½ inches from tip of tail to tip of bill. The thickness of their bodies at the sternum bone is large in proportion to other birds, owing to the need for attachment of wing muscles.

The nest of the Ruby-throated Hummingbird will average about one inch in width and one inch deep. It is a work of art, being composed of plant fiber, thistle down, moss, spider web and other soft materials covered with tree lichen glued on with their saliva. This hardens, thereby giving some solidity to the structure. The nest is usually placed on a horizontal limb of a tree varying from seven to twenty-five feet from the ground, looking more like a knot on the tree than a nest. They lay but two eggs and these are white with all species. There is a single exception to this, that the Hermit Hummer, which lays but one egg. When the eggs are deposited in the nest and the female begins the process of incubation, the male bird leaves home and remains away for the 10 or 12 days of incubating. It is thought the bright plumage of the male bird might attract some enemy to the nest and cause trouble, therefore he is ordered away from home.

When the young are hatched, the mother bird will sit on the side of the nest in the heat of the day, spreading wings and tail to shade them from the sun. Nowhere in bird life do we find a more solicitous parent than the female Hummingbird. The young of this species do not fall from the nest as do the young of some other birds. Since they are to remain on the wing much of the time when they leave the nest, it behooves them to be sure they are prepared, so they set their claws in the rim of the nest and each day try cut their wings. After some days of this preparation they feel they are able to maintain themselves on their wings, and they then take flight. Last June it was the writer's good fortune to witness this exercise as he took motion pictures of a nest from the top of a ladder. The young were fed regularly by their parents at the time and at intervals they tried out their wings as above described. The following day the nest was found to be empty.

Their food is the nectar from flowers, as supposed, but this comprises only about one-third of their diet. The balance is made up of small bugs which they find also in the flowers, as well as the insects they catch from the air. The young are fed by the process of regurgitation. The mother takes the food into her crop, predigests it, then pumps it into the mouth of the young.

The Hummer is the only bird that can fly both forward and backward equally well. Most of us have noted how they go into a flower and then back out again, with apparently the same beat of the wing. They, with the Chimney Swifts, are the only species that never alight on the ground. Their legs are so short that they could make no progress if they did.

It would hardly be just to leave this subject without some mention of the plumage of these wonderful birds. From the earliest times the Indians appreciated their feathers, in that his bride was thought not to be properly prepared for her wedding unless she had some of the feathers of the Hummer about her dress. No other group of birds can compare in beauty and variety of the plumage to that of this family. There is hardly a precious stone—ruby, amethyst, sapphire, emerald or topaz—the name of which may not fitly, and without exaggeration, be employed in describing the beauty of their plumage.

Nashville, Tenn., September, 1932.

A TRIP TO MUD LAKE, SEPT. 18, 1932

By MRS. BEN B. COFFEY, JR.

Having seen a large number of American Egrets and Little Blue Herons, as well as one Wood Ibis, at Mud Lake on September 5th, Mr. Coffey drove there on Sunday, Sept. 18, to show Miss Alice Smith and me the large flocks of these two "white cranes." Mud Lake is 13 miles southwest of Memphis and is located in both Mississippi and Tennessee, with Arkansas about three miles westward. The north shore, where most of the birds were concentrated, is in Tennessee.

As we climbed on top of the levee we saw a large hawk-like bird take flight from a nearby cypress. A turn toward the light and a white tail was seen. A Bald Eagle? A better view through the binoculars and the white head as well as white tail was seen, and Miss Smith and I added a new species to our life list. "Old Baldy" was seen twice again that day, soaring directly over us on one occasion. It evidently was a male, judging by its relatively small size.

While the Eagle was still circling overhead, Mr. Coffey called our attention to a Wood Ibis perched in a cypress between the levee and the lake. Number two for our life list! With the lake in the background, the picture seemed to be a typical one of this American Wood-stork in its summer home along the Gulf coast. It soon took flight and we were able to note the long outstretched head and neck and the dark outer flight feathers contrasting with the remaining white. We saw no other Wood Ibises, although we had high hopes of doing so. The Wood Ibis moves northward from its breeding grounds in July or August, and should be fairly common locally along the Mississippi until October. A local resident told us he had seen flocks of 50 to 75 of these "Gourd-heads" this season.

Mud Lake seemed to be a very shallow and muddy pond with a large number of white waders on the far shore and back among the willows. We made our way through the thickets to the muddy border in order to make a census of these birds and to look for more Wood Ibises. Why here were three of the latter, on black and white wings, coming down over the lake! No, we were mistaken. These birds were slightly larger and carried their heads drawn in—they must be White Pelicans! And in the glasses we made out the large yellow pouch-like bills, famous in song and story. Number three! A flock of seven others arrived and in watching the Pelicans swim about among the Herons it was discovered that many of the original birds there were Pelicans. In all there were 64 of them. The herons consisted of 180 American Egrets, 19 Great Blue (or Ward's) Herons, 15 adult Little Blue Herons and 256 of the all-white or immature Little Blue Herons.

In contrast with the herons which waded about and stalked their food, a few preceding or keeping abreast of the Pelicans, the latter swam along, plunging their cavernous bills in and out of the water with apparently good results. They moved slowly along, parallel to the shore, in an irregular column, two and three abreast, with each bird busily securing its share of the available fish. There were three main fishing groups, the largest numbering 27. A few Pelicans waded out on the shore and, at rest on land, presented the usual grotesque appearance that we associate with them from pictures or from trips to the zoo.

It was in the air, however, that these birds, the largest of all our North American species, really thrilled us. Becoming alarmed, they rose on their powerful black and white wings and in two flocks seemed to hover over the lake, undecided as to whether to return or leave. In fact, their flight was such that we did not realize they were leaving until conscious of their diminishing appearance. The birds of each flock, well bunched, seemed to slowly circle to the right and then to the left, back and forth all together, appearing at first to be a flock of all-white birds, beautiful in the bright sunlight, and then, as all tilted their bodies slightly, the dark outer flight feathers showed on each, outlining and emphasizing the remaining white. When the two flocks first came together, one-half would be all-white and the other black and white, then each half would change. The effect was beautiful; it might be compared to some of the lighting effects magnificently staged by some master showman. As we watched, they slowly faded into the distance.

White Pelicans winter from Florida and the Gulf Coast to Panama. They breed in Yellowstone National Park, near Klamath, Oregon, and at several lakes of southwestern Canada. During migration they may sometimes be seen east of the Mississippi (north of Florida), and seem to be not uncommon in the fall in this part of the Mississippi valley proper.

Memphis, Sept., 1932.

THE ROUND TABLE

THE SEASON AT MEMPHIS: In the June *Migrant* I mentioned that Prairie Horned Larks were apparently nesting here. Patience was rewarded on May 29, when we found their young along the roadside at the Municipal Airport. Two were first seen, then six others just beyond these. All were in juvenile plumage. A few minutes later an adult pair were seen over in the field itself. Inasmuch as up to five pairs of these larks have been recorded here since March 6, indications are that several pairs nested on this field, access to which was unfortunately barred to pedestrians. On May 21, Earl Henry, dental student here from Knoxville, and I added a new species to our life lists when we saw two Mississippi Kites in the Darwin-Ensley bottoms southwest of Memphis. On the 29th, Mrs. Coffey and I returned there and saw five. On June 18 I saw five on President's Island, at a point about four miles northeast of the point of original discovery. Two of these flew over us and alighted in a bare tree, affording good close-up views. On August 7, Mrs. Coffey and I again drove through the bottoms and saw four Kites and a Broad-winged Hawk perched in the open; even after approaching to a point underneath the Kites we could only make one of them take to the air. None were seen on September 5 or 18; by the latter date they had probably gone South. On May 21, Henry and I saw an Osprey over Horn Lake at Lakeview, Miss. This is my first personal record for the Memphis area. At the Lakeview, Miss., barrow pit, a King Rail's nest was found on May 7 with 3 eggs, 4 eggs on the 8th, and 9 eggs on the 15th. No change through June

1, the last visit before the 4th, when 2 eggs remained and 3 to 4 chicks were seen, two being caught and photographed. No Sora were seen on this last trip. White-rumped Sandpipers; five noted on May 21 and one on May 29. Other shore birds were present through the last visit, June 4. At this time six female Lesser Scaups were still lingering here. A Baldpate was seen on May 21. On May 30 the nesting colony of Pied-billed Grebes was checked for the last time. One adult was in charge of ten immature Grebes; apparently all that survived from about a dozen nests averaging 8 to 10 eggs each. Three young were over 3 weeks old, two from 2 to 3 weeks old, and five were 10 or more days old. When I returned here in August only a few inches of water remained in the formerly deeper portions and weeds several feet high were growing where the floating nests of the Grebes had been. About 60 American Egrets and immature Little Blue Herons were seen, but they left this spot within two weeks, as only a small and deep pit adjacent to the highway failed to dry up completely. Here, on August 7, we saw a few Least Tern feeding immature birds, while on the 14th, the only ones seen were five immature Terns fishing for themselves in the roadside pit. For more recent waterbird observations, see Mrs. Coffey's article on page 35. This appears to be a popular highway for swallows migrating southward, as large numbers are seen in the air or on wires. They are chiefly Rough-winged, but there are also Bank, some Tree, and a few Barn. One Cliff Swallow was noted. The Magnolia Warbler appears to be the most common transient of this family.—Ben B. Coffey, Memphis.

LARK SPARROW AT NASHVILLE: This bird, on account of its very local distribution here, has all but eluded the efforts of local bird students to record it as a breeding species. We have a number of early August records, but these have been considered as transient birds. On July 4, 1932, Messrs. G. R. Mayfield, Vernon Sharp and myself were so fortunate as to find two family groups of these birds on the Stewart's Ferry Pike, twelve and twenty-two miles east of Nashville, respectively. There were four birds in the first lot, mostly young, but at least one parent which was still bringing food to them. They made headquarters in the tops of medium-sized trees along a creek in an open meadow, and allowed us to closely observe them. I found an empty nest close by, built in the short crab-grass, and resembling that of a Dickcissel. These young had been out of the nest at least ten days. At the further location, a mile west of Gladeville, a group of six flew from old apple trees at the side of the road and into an adjacent meadow, where they permitted close approach. My first summer record of this species about Nashville was made on May 16, 1918, on the Lebanon road, a few miles north of the first mentioned location. Two birds were observed, three miles apart, dusting themselves in the road. My next record was on June 21, 1919, when a parent bird was seen feeding a young one as it sat on a telephone wire over pastured land. This was near the Masonic Home, along the L. & N. R. R., five miles north of Nashville. They could not be found there the following year. On July 14, 1916, Mayfield collected a specimen near Hendersonville, fourteen miles northeast of Nashville. It was one of several which he had flushed from a dusty road, and he believes they had nested nearby. This species is one of the largest and handsomest of the Sparrow family; it is trimly built, has a relatively small head and assists in its identification by spreading its tail so that the white margins may be seen.—A. F. Ganier, Nashville.

REELFOOT LAKE: The new Biological Station at Walnut Log is now equipped and ready for the use of naturalists and nature students who may wish to visit the lake. Good hotel accommodations may be had at the Walnut Log Hotel nearby, and it is hoped that our members will visit the Station frequently. It is sponsored by the Tennessee Academy of Science.

FALL MIGRATION RECORD FOR THE GOLDEN-WINGED WARBLER: On the afternoon of September 8, 1932, while following a flock of migrant warblers, my attention was attracted to a fast-feeding warbler which swung head downward on the terminal twigs like a Chickadee. My suspicions were abundantly confirmed on closer examination, for I had seen this warbler several times in fall migration near Atlanta, Ga. It was a male Golden-wing, *Vermivora chrysoptera*, in splendid plumage, and I followed this rare visitor full fifteen minutes to study his habits and markings.

The first record made of this species in the vicinity of Nashville was by Mr. J. A. Robbins and myself in Centennial Park April 26, 1922. His song and actions left a thrill in our minds. The second record was made by a group of the T. O. S. in Shelby Park, May 5, 1929. Mr. Harry Monk and Mr. Compton Crook made a third record in Westmeade, May 4, 1930. My cards for September, 1931, show a record for the Golden-wing, but the glimpse was so hasty that I hesitate to enter this record as authentic. This, then, is the fourth unquestioned record of this species near Nashville. The writer found a pair of Golden-wings feeding young just out of the nest at Mayland, Camp Nakanawa, July 20, 1924.—G. R. Mayfield, Nashville.

COWBIRDS BREEDING IN EAST TENNESSEE: This species has been regarded by some as one not to be looked for in this region during the breeding season, therefore the three following notes from observers in that area will be of interest. H. P. Ijams, at Knoxville, found a nest of the Red-eyed Vireo on June 12, 1932, containing one egg of that species and one of the Cowbird. Shortly before, he found a young Cowbird being fed by a Kentucky Warbler in its nest along with young of the rightful owners. Of more than twenty nests examined by himself and thirty-five examined by L. A. Hofferbert, these were the only Cowbird eggs found. He does not recall finding them in previous years. Robert B. Lyle of Johnson City, on April 17th, found a nest with three eggs of the Cardinal and which also contained two of the Cowbird. These were the first eggs he had ever found of the Cowbird in that vicinity. At Bristol, F. M. Jones writes: "The Cowbird is very rare in this section, and only occasionally is one seen." The presence of Cowbirds in summer is frequently detected only by finding their eggs in other birds' nests. Mr. Jones has examined hundreds of nests and is in a position to know. Brimley and Pearson, in their "Birds of North Carolina," 1919, were unable to record it as a breeding species in that State.

BIRD BANDING: Mrs. Arch Cochran's work in bird banding received a two-column writeup in the Nashville Banner of Sept. 4th, together with a number of photos reproduced in the rotogravure section. At her home, "Dripping Rock Bird Sanctuary," she has of late been using clap nets, this type of trap having proved most effective and least harmful to the birds captured. To date she and her co-operators have banded more than 1,500 birds. Last spring she was justifiably thrilled at having trapped a Robin originally banded at New Hartford, Conn. The bird was captured on March 23 and trapped again on April 10. She is hoping for its return.

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NOTES ON A CAPTIVE GOLDEN EAGLE

By HERBERT C. SANBORN

During late February, 1930, a Golden Eagle was captured with a steel trap a few miles north of Chattanooga, near the gorge of the Tennessee River. It had previously been observed near the carcass of a pig, where the trap was set which resulted in its capture. The bird was brought to the city and turned over to officers of the Izaac Walton League, who finally sent it to Nashville on February 28. It was placed in a large cage in Centennial Park, where it remained for nearly four weeks. A number of adverse comments were registered in the daily press and elsewhere, the substance of which was that in this land of freedom a bird naturally so free in its life should not be kept a captive. Members of the T. O. S. had planned to take the bird back to its mountain home and release it, but the park authorities, apparently becoming annoyed with criticism, opened the cage and released it without formality, on March 24.

As might have been expected, the bird was shot down and badly wounded the same day, in the outskirts of the city, three miles north of the point of release. It had lit in a tree to cast hungry eyes on a barnyard flock, whereupon the owner of the place stalked the bird and poured two loads of squirrel shot into it. The usual boastful announcement of "farmer shoots big eagle," came out in the afternoon paper and upon reading this Dr. H. S. Vaughn and I motored in the evening out to the place and after considerable dickering with the farmer, we secured the bird and conveyed it to my aviary. When shot, it had a bell about its neck, alleged to have been put on it before leaving the park. It had lost considerable blood and was very weak. Shot holes were found all over its body, its beak was badly torn and the wings and wing feathers were so damaged that the bird could neither open nor fully close them. A toe on its left foot had been cut off by the trap.

For several days it would not eat and drooped so that its survival was doubtful. The bird, however, finally began to take food and from then on its recovery was gradual, but steady. The quills of nearly all of the wing feathers had been damaged by shot and very soon these began to come out, followed by new ones which developed rapidly, so that by July it could hop up on a perch three feet high and by August was able to fly from this perch to the side of its cage some twenty-five feet distant. Its captivity had also caused it to become tame.

By mid-October, the eagle had shed every quill feather on its body, had grown a new beak, and was again the magnificent creature that had been captured eight months before. It became active and restless, and at times made strong efforts to release itself from the wire-covered enclosure in which it had recuperated. Plans were again made to take the bird back to the mountains, but a week before the appointed time it succeeded in tearing a hole in the now somewhat rusted poultry wire and without waiting to say "adieu," it launched itself once more into freedom. This was on November 1, 1930.

It was reported several weeks afterward, between the Hillsboro and Harding roads, near the estate of Mr. James Ryan, which is in Elmington Park about half a mile north of the estate of Dr. A. L. Sharber, where the bird had been kept in a disused pheasant cage. The eagle was seen in this vicinity on perhaps a dozen occasions, from that time until February, after which it disappeared, presumably, as breeding time approached, having left to seek its former mountain home. On one occasion, January 3, it swooped down and caught up a rooster by the head, carrying it away dangling from its talons. A dog was at once set in pursuit, and, through its barking, caused the bird to drop its prey before it was able to get fairly under way. The house-boy buried the fowl, but the eagle was observed to return the next day to dig it up and eat a portion. The boy stated that eight inches of soil had covered the rooster. In order to test its ability to find the carcass again, by a sense of smell—the problem investigated by Audubon, Darwin, Rouse and Strong—I had it again buried, at night, and all traces of the digging obliterated. My students relayed in watching the place, but after several days their interest lagged, and by January 13 the watching ceased. Two days later it was found that something had scratched up a furrow in the earth around the fowl, but it had not been exhumed. Another cache, containing chicken heads and feet, was empty. This may or may not have been done by the eagle. A further account of this experiment is included by me in an article, "Observations of Apparently Unlearned Behavior," published in the Journal of Comparative Psychology, Vol. 14, No. 1, August, 1932.

One of the most surprising things about this bird is that it succeeded in existing without being shot, from November 1 into February, in a fairly well settled area within a mile of the city limits. This area, however, was well wooded and included a number of wooded hills. Mr. Ryan and his neighbors took an interest in the bird and extended such protection as they could. On its leg was placed a copper band bearing the number 700,003, Bureau of Biological Survey, and it is hoped that by means of this mark we may be able some day to present another chapter in the life of this bird.

Nashville, Tenn., November, 1932.

* * *

THE PILEATED WOODPECKER

By VERNON SHARPE, JR.

One of the most fascinating experiences I can recall is that of finding my first nest of the Pileated Woodpecker, after four years of fruitless searching. I had very nearly given up the task, so one can well imagine my satisfaction in finally attaining my goal; a satisfaction which looms anew in my mind as I remember this event, to some perhaps unimportant, yet one which will always sustain my interest in this splendid bird. On this particular day, three hours of strenuous tramping over the hills and dales, through a woodland of virgin timber near Radnor Lake, in the warm sun of early April, had brought on a weariness and a temptation to forsake the search, when suddenly I was startled by the ringing call of the Pileated Woodpecker, a half mile away. The cry came from the lower end of "Short Hollow," which for years had been the nesting place of the Black Vulture, Hooded Warbler and Red-tailed Hawk. After listening for some minutes to definitely locate the position of the elusive bird, I set forth with renewed energy, and after quiet, careful stalking, had the pleasure of coming upon the object of my quest in a huge sycamore that proved to be the nesting site.

The keen joy of that momentary conquest and the close-up experiences which followed make this bird stand out in my mind as one of the most interesting and unique of all the feathered tribe. A denizen of the deep woods, it is known to but few and its therefore regarded somewhat as a bird of mystery. As to size, its wing-spread is twenty-eight inches, and while in flight it appears to be nearly as large as a crow. In the matter of flight, the Pileated, apart from other members of the family, does not conform to the customary dips and irregular flight of the other Woodpeckers. Instead, it possesses a stately, continuous wing-beat that propels his body on a direct, level course, and frequently for long distances. This attribute, along with the bright coloring of red, black and white, enables the species to be easily distinguished at some distance. The call note is most similar to that of the Flicker, except the latter has less volume and is repeated more often. Probably because of its imposing size and noisy habits, the Pileated Woodpecker has been given such colloquial names as "Log-cock," "Wood-chuck," "Stump-cock," etc. Its scientific name, *Ceophloeus pileatus*, means pecker of trees with a prominent (red) crest.

For a nesting site a dead tree is invariably selected and preferably one of large size, from which the branches have fallen. The cavity is situated from 20 to 85 feet above the ground, with a depth ranging from 20 to 26 inches. Generally the four-inch opening is broader at the base and angular at the top, forming somewhat of a triangular shape. While incubating, this species will continue to enlarge the nest cavity, as was proved by personal experience. One season, a pair at Radnor Lake, near Nashville, had a fresh set of four eggs on April 16. The following year, April 1, the nest of this pair was again located and one of the birds inside was heard steadily digging. On April 15 this nest was found to contain young, proving beyond doubt that the cavity had been enlarged in view of eighteen days required for incubation. Concerning the two nests referred to above, the first was approximately 85 feet up in the sycamore above-mentioned, and required two hours to climb, while the latter was less than 30 feet from the ground. An old cavity is never used a second time for nesting purposes, and knowledge of this fact is useful in locating breeding localities. Once excavation has begun, the ground will be literally covered for some distance with chips of wood, some as large as the end of one's finger. This bird apparently has little regard or anxiety over nearby neighbors, as I have seen Down Woodpeckers, Red-bellied Woodpeckers, Fox Squirrels, Flying Squirrels and Pileated Woodpeckers all having homes in one dead sycamore. After the young have hatched, the old birds are less wary, as might be imagined, and will sometimes alight within twenty feet of one who may have climbed the nest.

For food, grubs, wood-borers and beetles constitute the major portion of their diet, and to secure these, the bird will rip off large areas in rotten logs and stumps with its powerful, chisel-like bill. On rare occasions this big woodpecker may be seen awkwardly perched on some small branch, eating berries. The winter roosting place of this bird is rather interesting. A live hollow tree is selected and there two or more holes are dug, presumably with the thought of using one for escape should any attack by some night marauder take place. These roosting places are used year after year; in fact, there is one site in the Overton Hills, south of Nashville, that has been used for so many seasons it has become essential for the woodpecker to cut away portion of the tree that is trying to heal over the cavity.

The Pileated Woodpecker remains with us throughout the year. And though they at one time were apparently rare, they now seem to be on the increase. Almost any trip into the country where suitable woodlands are to be found, will be rewarded with either hearing the loud call, a tapping as the bird digs for food, or viewing the slow, steady wing beat propelling the bird as he flies over some open meadow or valley to woodlands beyond.

NASHVILLE CHRISTMAS CENSUS FOR 17 YEARS

By W. M. WALKER

For ready reference I have compiled below the Christmas bird lists prepared by members of the Tennesseee Ornithological Society during the past eighteen years. All of these except 1914, 1920 and 1925, were published annually in Bird-lore. The 1920 list is missing. Arranged as they are below, they are readily comparable and form an accurate and useful cross-section of the winter bird life of the country around Nashville. The winter status of the species, as established by listings, through the winter months, is shown in the second column, by means of the following symbols: + = common; ** = fairly common; — = rare, and × = accidental or extremely rare. The letter M indicates 1,000 individuals; for example, 5M = 5,000. Certain gregarious birds, like the Grackle, Cowbird, Starling, Redwing and Robin, are in some years extremely abundant at Christmas time, and again are entirely absent. They are often absent or nearly absent through December until late January. Observers participating in 3 or more censuses are A. F. Ganier. 15; G. R. Mayfield, 10; H. C. Monk, 10; Mrs. Sanford Duncan, 6; J. M. Shaver, 5; H. S. Vaughn, 4; Mrs. Mayfield, 4; J. K. Baker, 4; A. C. Webb, 3; and E. M. McNish, 3. The total number of species recorded is 88; deducting those listed only once, this number becomes 70.

Year		1914	'15	'16	'17	'18	'19	'21	'22	'23	'24	'25	'26	'27	'28	'29	'30	'31
Date	December	26	26	24	23	24	27	24	24	23	25	26	26	24	23	22	21	55
No. of Species		31	38	44	39	33	45	39	54	51	50	42	49	62	55	46	56	59
No. of Observers		1	2	1	1	1	5	1	7	8	8	2	6	7	4	8	10	13
Loon	—	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--
Grebe Holboells	×	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--
Grebe Horned	—	--	--	--	--	--	--	--	--	3	--	--	--	--	--	--	--	--
Grebe Pied-billed	—	--	--	--	--	--	--	--	--	--	4	--	5	--	--	--	--	--
Cormorant Doub-crest	—	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5	1
Heron Gt. Blue	—	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--
Goose Canada	—	--	--	--	--	--	--	--	--	--	--	55	--	--	--	--	--	--
Duck Mallard	**	--	--	1	8	--	--	35	--	--	40	50	35	100	75	90	105	43
Duck, Black	**	--	--	--	--	--	--	--	--	42	12	6	8	6	12	--	47	--
Duck, Pintail	—	--	--	--	--	--	--	--	--	--	30	--	--	12	6	--	--	--
Duck, Gr-wing Teal	–	--	--	--	--	--	--	--	--	--	40	--	--	2	10	--	--	--
Duck, Bl-wing Teal	–	--	--	1 sp?	--	--	--	--	--	--	200	10	--	10	10	--	--	--
Duck, Shoveller	—	--	--	--	--	--	--	--	--	--	--	--	--	4	--	--	--	--
Duck, Lesser Scaup	+	--	--	--	--	--	25	--	5?	6	100	15	40	90	50	25	45	40
Duck, Ringnecked	+	--	--	--	--	--	--	--	--	--	--	--	--	--	35	75	110	89
Duck, Redhead	—	--	--	--	--	--	2	--	--	--	--	--	--	3	--	--	--	--
Duck, Canvasback	—	--	--	--	--	--	--	--	--	--	20	--	--	--	1	--	--	--
Duck, Goldeneye	—	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Duck, Old Squaw	—	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8	--
Duck, Ruddy	—	--	--	--	--	--	9	--	--	--	--	--	8	--	--	--	--	--
Duck, R-br. Merganser	—	--	--	--	--	--	--	--	--	--	3	--	--	--	--	--	--	--
Vulture Turkey	**	1	2	2	2	--	--	--	2	1	--	--	--	18	--	--	5	1
Vulture, Black	**	8	--	1	24	8	7	50	17	19	4	1	--	11	2	--	2	5
Hawk, Sharp-shinned	–	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hawk, Coopers	**	--	--	--	--	--	1	--	4	--	1	--	1	1	--	2	--	1
Hawk, Red-tailed	**	2	--	3	3	1	4	2	5	6	4	1	1	1	2	--	2	1
Hawk, Red-shouldered	–	--	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hawk, Marsh	—	--	--	--	--	--	--	--	5	--	--	--	--	1	--	--	--	1
Hawk, Sparrow	**	3	4	6	2	2	6	2	11	11	4	1	9	4	4	1	6	16
Bob-White	+	12	10	6	6	6	8	11	14	23	8	50	1	31	12	15	--	8
Amer. Coot	**	--	--	--	--	--	--	--	--	--	--	--	--	150	200	150	62	51
Kildeer	+	26	34	6	3	2	16	34	52	39	24	14	11	35	11	4	12	60
Snipe, Wilson's	—	--	--	--	--	--	--	--	2	3	3	1	--	1	4	--	2	--
Yellowlegs, Greater	×	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--
Yellowlegs, Lesser	×	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--
Dove, Mourning	+	28	60	2	--	--	6	6	65	95	3	60	64	75	44	32	1	6
Owl, Screech	**	--	--	--	1	1	--	--	1	--	1	--	--	1	--	1	--	3
Owl, Great Horned	—	--	--	--	1	1	1	2	--	--	1	--	--	1	--	--	1	--
Owl, Barred	—	--	--	--	--	--	1	--	2	1	--	--	--	--	--	--	--	1
Kingfisher	—	--	1	1	--	--	--	--	2	2	--	2	1	1	1	1	3	4
Flicker, Northern	+	7	12	40	25	6	60	13	47	85	33	25	31	15	32	24	43	55
Woodpecker, Pileated	–	--	--	1	1	--	2	2	1	4	1	3	1	3	1	1	4	2
Woodpecker, Red-bellied	**	2	6	4	5	3	7	--	26	28	8	9	4	11	12	6	7	11
Woodpecker, Red-headed	—	--	--	2	--	--	--	--	5	--	--	--	1	1	3	--	18	2
Sapsucker, Yellow-bellied	*	3	6	2	6	2	3	1	3	3	2	2	3	2	1	4	2	2

Woodpecker, Hairy	**	--	2	--	2	1	4	5	5	7	4	2	[illegible]	6	4	1	5	5
Woodpecker, Downy	+	3	8	3	7	4	8	5	18	26	8	5	5	8	9	7	10	9
Phoebe	—	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	1
Lark, Prairie Horned	+	312	12	370	75	40	25	25	19	11	--	60	47	27	--	--	--	61
Blue Jay	**	--	3	2	--	--	8	--	8	57	4	16	14	13	2	2	12	9
Crow	+	25	66	13	12	18	5	26	90	336	1	300	58	215	50	130	127	36
Chickadee, Car.	+	10	8	15	8	10	28	23	37	43	17	18	21	18	18	20	25	48
Titmouse, Tufted	+	3	4	13	4	4	7	5	45	26	14	8	20	11	15	7	18	15
Nuthatch, Wh.-br.	—	1	--	1	2	1	12	6	--	3	2	--	--	1	2	--	2	3
Brown Creeper	—	--	5	1	--	--	--	5	5	5	1	1	2	3	1	--	3	2
Wren, Winter	**	--	--	--	1	--	1	--	3	--	2	2	2	4	2	1	10	3
Wren, Bewicks	**	1	2	2	2	1	1	1	9	9	2	--	5	3	1	1	1	4
Wren, Carolina	+	6	15	12	4	--	5	14	43	48	9	12	16	16	11	8	17	19
Mockingbird	+	10	20	25	12	8	32	16	40	38	20	8	47	34	30	22	31	68
Robin	+	--	--	105	--	8M	8M	--	160	25M	11	15	27	16	176	2	22	36
Thrush Hermit	—	--	--	--	2	--	4	--	2	1	--	--	3	2	1	1	3	--
Bluebird	+	5	14	17	8	14	17	18	54	57	10	16	44	27	33	11	31	84
Kinglet, Gold-crowned	**	--	5	--	--	--	--	4	11	23	--	8	6	1	8	5	3	8
Kinglet, Ruby-crowned	—	1	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
American Pipit	—	--	--	--	--	--	--	--	--	--	--	2	--	--	--	--	--	--
Waxwing, Cedar	**	--	--	2	--	--	1	--	35	--	--	6	--	12	26	--	20	32
Shrike, Migrant	—	--	2	--	--	1	--	--	1	--	--	--	--	--	--	1	--	2
Starling	+	--	--	--	--	--	--	--	--	20M	--	--	--	--	6	75M	1.8M	--
Vireo, White-eyed	×	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--
Warbler, Myrtle	+	--	1	4	3	--	40	8	95	13	2	4	8	7	20	16	10	22
Warbler, Palm	×	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--
Meadowlark	+	327	22	80	50	6	11	45	200	173	18	15	138	44	17	26	3	113
Blackbird, Red-wing	—	--	--	--	--	--	--	--	--	--	20	--	--	2	200	2	--	--
Blackbird, Rusty	—	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	20
Grackle, Bronzed	+	--	2	21	1	4M	12M	26	1	400M	--	--	200	17	50	3M	2.5M	--
Cowbird	**	--	2M	--	--	--	3M	--	38	50M	--	--	--	--	--	20	50	2
Cardinal	+	17	42	20	15	25	65	33	95	112	100	50	75	114	48	65	23	116
Purple Finch	**	--	--	--	4	--	5	--	21	24	--	--	--	9	--	12	4	6
Goldfinch	+	--	8	6	4	8	12	22	48	37	4	8	43	21	7	10	33	24
Towhee	+	5	13	35	8	12	22	15	19	47	15	30	27	16	23	34	62	31
Sparrow, Savannah	**	7	5	5	--	4	--	1	4	--	--	--	--	1	1	16	5	5
Sparrow, Fox	—	--	6	1	2	2	2	3	20	4	--	--	4	3	6	1	5	7
Junco, Slate-colored	+	35	70	75	60	110	140	60	120	170	17	75	125	122	100	115	267	81
Sparrow, Field	+	60	40	6	14	20	140	34	60	178	25	6	50	38	9	9	77	105
Sparrow, White-crown	**	--	--	1	4	--	--	14	10	6	--	--	27	18	5	--	8	7
Sparrow, White-throat	+	10	38	45	60	15	70	37	175	400	70	40	58	86	94	150	73	69
Sparrow, Swamp	**	3	--	--	--	--	--	--	80	18	--	2	4	1	4	2	3	4
Sparrow, Song	+	60	7	27	9	18	90	57	130	71	26	35	36	24	41	48	69	85

Nashville, Tenn., November, 1932.

A STATE BIRD FOR TENNESSEE

By BEN B. COFFEY, President.

Inasmuch as Tennessee is one of only five states which have not selected a state bird, and there has been some local agitation for such an emblem, the Tennessee Ornithological Society is the logical and authoritative organization to originate and conduct the project of selecting a suitable choice to be presented to the Legislature for official action. While it might seem best to defer such a campaign until our recent expansion and educational efforts have reached more people, notably teachers, we might, by delay, have our leadership taken away from us by some organization which may not get out as representative a vote or present the necessary facts on our Tennessee birds to enable an intelligent vote to be cast. Such a campaign with ample newspaper publicity, and using the enlisted support of the schools, should, I believe, be timed to start about next March. Interest in nature becomes more widespread with the awakening of spring. While real bird lovers, whose numbers are not legion, are better qualified to elect a state emblem, the main value of the campaign would be not so much the having of an official emblem, but in taking this opportunity to awaken an interest in birds and their value on the part of the average person. After consulting with some of our members, I have concluded that it is our duty to direct the campaign and give the benefit of our experience.

One method of presenting this matter to the public would be to have a committee present a list of 15 suitable birds in an article introducing the subject, this matter to be passed on to the newspapers. Following this there could be a series of two or three articles describing the birds thus nominated. These articles could be prepared by the committee and an invitation extended to the public to champion their favorites with supporting articles in the press. These articles could be followed in the next issue by a summary of all of them, written by our local representatives, and ballot solicited from the public, including school children.

The details of such a campaign are to be planned by a committee which it is my pleasure to appoint. The above suggestions are given space merely to elicit more and probably better ones, and every T. O. S. member is urged to communicate his or her thoughts on the matter to a member of the following committee: Dr. George R. Mayfield, Nashville, chairman; R. A. Wilson, Nashville; John Bamberg, Knoxville; Miss Jacqueline Hall, Memphis; Robert Sparks Walker, Chattanooga, and Bruce P. Tyler, Johnson City. In addition, our members, where we have no organized chapters, are to consider themselves in charge locally. and are urged to help secure representative publicity and voting.

As additional background for the planning of this campaign I would direct all interested to the April, 1932, issue of Nature Magazine, and also to the issues of October and December. The fact that a bird has already been selected by another state should not militate against it. Since almost all states have selected their emblems, practically all our most common birds which are found here the year round, have been selected by other states. The Mockingbird is the state bird of Arkansas, Florida, Mississippi and Texas. Its selection by Tennessee would accentuate the fact that this famed songster is truly a Southern favorite. (The Western Meadowlark represents seven Western states.) The Cardinal is state bird for Delaware, Illinois, and Kentucky, and a favorite in Indiana. Other of our old stand-bys chosen are Bob--white (Oklahoma and Rhode Island), Carolina Chickadee (North Carolina), Carolina Wren (South Carolina), Goldfinch (Minnesota), Bluebird (Missouri and New York), Tufted Titmouse (West Virginia), Flicker (Alabama), Robin (Michigan, Wisconsin and Virginia), and Brown Thrasher (Georgia). The latter two are probably uncommon during winter over most of Tennessee. Among our summer residents are the Baltimore Oriole (Maryland), and the Wood Thrush (District of Columbia).

The Downy Woodpecker, while common and a favorite with bird students, is, I have found, unknown to the vast majority of children, Scouts, and even adults. Perhaps the Towhee may be popular and widely distributed in the state. It does not nest at Memphis, but is common except in summer. There are many others to be suggested. Nature Magazine suggested (April) the Painted Bunting for Tennessee. This was amusing to me, as we eagerly seek this species each spring here at Memphis and have only seen it a few times, these instances constituting our only Tennessee records. Robert Sparks Walker, poet and naturalist of Chattanooga, commented on this in the December issue of the same periodical.

Let us each rally to the praise of our favorite and lend an attentive eye or ear to the briefs in behalf of other feathered friends, so as to know and appreciate them all the more and to pass on this zealous interest, which is its own reward, to those about us.

Memphis, Tenn., Nov. 22, 1932.

MARGINAL NOTES ON THE MOCKINGBIRD

By MRS. ARCH COCHRAN

A long time ago some one said something about the value of "a bird in the hand." Little did he know what his words could mean to the bird student engaged in bird banding. Probably he never gave a thought to what it means to hold a bird long enough to examine, measure and weigh it. Long enough to count each feather and note every variation in shade and color. Nor did he take into consideration the fact that if one desired, the two in the bush would some time or other land in the hand for the same sort of study. And certainly there are times when the two in the bush are worth more for study than in any other place.

For example, let us take the Mockingbird. In the hand it is a bewildering thing. Spirited creature that it is, it fights and struggles every second. It makes such a thing as examining plumage and measuring areas of color an arduous task. It leaves one uncertain about its sex and, most exasperating of all, when once captured, it seldom returns for further study.

Facing all these discouraging notes, a start was made with a dingy, soot-covered Mocker captured on Jan. 16, 1932. This bird had been pugnaciously defending its feeding station for several months. It had been accustomed to sitting on a nearby telephone pole, where it could rout a dozen sparrows with one dash toward its food. It had not been heard singing, so no sex was marked opposite the band number. The feathers were examined, the white areas in wing and tail measured, and the light umber color of the eyes noted. The legs were slaty black.

On April 14 of the same year another Mockingbird appeared. This one was given a Biological Survey band on one leg and, on the other, another Survey band that had been painted red. The red lead was rubbed deeply into the numerals and thickly painted with a quick-drying enamel. This made identification easy at some distance. As far as scale and ruler could show, there was no difference between the two birds. The number of feathers with white was the same, the tail was the same in length and coloring, and there seemed to be as much soot on one as the other. When the bird was released, it alighted on a limb about twenty feet away, where it was immediately joined by another Mocker, which sat calmly by, watching while the newly-banded bird pecked furiously at first one band and then the other. In a few seconds both flew a short distance, and before many minutes passed one of them poured out a charming song, one that was pleasant in more ways than one, and which definitely proclaimed it as the male and most likely the mate of the other Mocker. But which bird was he? Did the singer wear the two bands just adjusted, or the one put on in January? Or was he an altogether new bird at the station? The red band could not be seen at this distance, and the birds had shifted from side to side as they flew away, making an accurate check impossible.

To capture both birds was the next step. It should have been the easiest of all things to do, and with some birds it is easy, but not with the Mockingbird. Not much could be done in finding a difference between the sexes unless both birds were in the hand at the same time. The first two captures had been made with a drop trap, the pull-string type, and for fear they had become trap wise, a ground clap net was used. One measuring four feet square would have been large enough, but fearing that eagerness would interfere with judgment in springing the trap, an eighteen foot net was set up. The mesh was large enough to allow the head of a Mocker to slip through and hold it securely without injury.

All other birds entering the net area were allowed to feed freely and undisturbed. And such a banquet as was spread before them! There were fat white grubs (in the shiny cover of a coffee can), circling around and around the bottom, keeping in motion just enough to attract Catbirds and Wood Thrushes. There were two coffee cans sunk in the ground and filled with worms and soil which held the attention of the Robins to such an extent that a new supply had to be put there several times a day. There was grain of every sort grown in Tennessee. There was bread, pie-crust and cake, which proved irresistible to the Flickers and Jays. There was even a constant drip of water kept in a basin where any Mocker approaching it would be caught. All the water did was to attract a few Warblers. With the coming and going of all these birds, bathing, dining and quarreling, not a Mockingbird came to the net. They came close enough to have the two bands clearly visible on one of them and once when they were together the other bird was seen to be also wearing a band. That looked very much as if the latter bird was the one banded in January. But which bird was the singer was still uncertain. All other trapping was discontinued for a week. Finally, so many birds feeding freely in and out of the territory that had originally belonged to the one Mocker must have proved too much for them.

The bird with the two bands was captured about eight o'clock one morning. While examining the feathers of the belly and flanks, a small firm substance was felt that had never before been noticed in any bird. Otherwise the bird seemed just as it was when first caught in April. It was placed in a roomy glass jar with a net cover over one end and the jar was anchored near the trap. If the mate was anywhere in the neighborhood it would surely come to the captive. Two hours was the time limit set for holding the bird. The day was warm, so two hours would not be too long to keep a female from the nest in case she was incubating. That this was a female seemed very certain since finding the little lump that felt so much like an egg. In just an hour and ten minutes the other bird came close. At first it uttered little calls, to which the captive responded with much excitement, turning and fluttering and pulling at the net covering the end of the jor.

Two more minutes passed. Then the mate flew to the ground, hopped within ten feet of the net, cocked his head to examine the jar, then flew directly to the mesh of the trapping net and bit viciously at the threads. After fluttering up and down the net, taking a bite here and there, it seemed satisfied there was no harm in it, and it flew to the ground, still uttering cries of displeasure. A moment more and it hopped directly to the jar. That was the zero hour for the trapper. Taking an extra tight hold of the trip cord, a pull was made and to my great satisfaction there, near one corner of the net, was the second Mocker. Its head was safely struck through the net, and it was fluttering and jumping as much as any normal Mockingbird.

The band on this bird proved to be the one placed there in January. Since it was supposed to be a male, another band was put on the other leg, this one a white one. The note book for that day showed that the birds looked alike and acted alike. There was no variation in color or shade; the eyes of the bird with the white band were deeper in shade than in January, while the eyes of the red-banded bird were lighted, almost strawy in color. The legs of both were the same in color and size. Weighing them showed the one with the red band to be heavier than the other. The position of the small lump, thought to be an egg, had perceptibly changed in the two hours of captivity. The feathers were again measured and counted and again found to be the same in number. Measuring the white areas came next and when that was finished the bird with the red band (first taken in April) was found to have less white than the other; this, according to authorities, being a characteristic of the female.

Ten days after capturing both birds, the one of the red band returned to the trap for a bath and was captured. During examination the brood spot was found to be as bare as though feathers had never grown on the breast. And now for the first time there was absolute certainty that it was the female which wore the red band. An interval of rest from traps now seemed to be wise for these birds until the brood was well advanced. Besides, another pair of Mockingbirds were under observation at this time and determining and marking their sex was as difficult as the first pair.

Now comes one of the entries in the note book that makes one feel that the fascination of bird-banding lies in the certainty with which one may prove today the things guessed at yesterday. On September 9 a small flock of Mockingbirds, about eleven in number, was seen hovering about the net. They all appeared to be juveniles; at least, they all had speckled breasts. The plumage above was a beautiful clear gray, while below here and there, the breast feathers terminated in olive brown, making the breast look spotted. Over the whole bird was an overtone of buff, even the white in the primaries ended in the same tinge.

For an hour they were watched at their play and while waiting tensely to get as many as possible in one drop of the net, one bird was seen to have a band. A moment more and two bands were seen on the one bird. This was puzzling. Waiting no longer to see how many of the eleven birds could be trapped at one time, the net was dropped with the intention of capturing only the banded bird. Fortunately, four others were caught. It was well, too, else no accurate comparison could have been made. The bird with the two bands was the female banded in April. The red was entirely worn from the band, but under the magnifying glass the red lead was seen ground in the numerals. Her bill was dark, almost black; her legs, too, were slaty black, and she looked adult about the head, but what was she doing with the same spots on her breast that the youngsters had? The other birds had a look of immaturity that was unmistakable. Their legs were light bluish-gray, their bills had a pinkish buff color very different from the older bird, and they were much lighter in weight.

During the next week thirty-five more Mockers were captured, but though all of them had speckled breasts, none of them had dark legs and bill, and they acted and looked like young birds. Finally, on Oct. 14, the same two-band bird was recaptured. This time the plumage was no longer washed with buff; even the subdued sheen of September was gone, and, of greater interest, the spots on the breast, too, were gone. From this observation it would seem that the adults, as well as the young, complete their fall moult with a tinge of buff and with spotted breasts, and that these features are worn off after a short time.

Nashville, Tenn., November, 1932.

* * *

BIRD-LORES XMAS CENSUS, the thirty-fourth, may be taken this year on any day between Dec. 22 and 27. Our members are urged to co-operate in this winter survey of bird life. The magazine, "Bird-Lore," has published a number of other Christmas census lists from Tennessee, mostly from the eastern part. Back volumes are on file in the larger State libraries. At Nashville the Carnegie Library has volume 7 (1905) complete to date. Our Curator has the volumes issued prior to 1905.

THE ROUND TABLE

THE SEASON AT MEMPHIS: An Upland Plover noted in the Zoo here, was caught September 3, south of Memphis, near the Mississippi line. Most of our winter residents were here by the middle of October. On November 6, a White-crowned Sparrow was seen and four or five heard singing; my only other record of this species during my five years here is for two seen on May 5, 1929. A small number of Cedar Waxwings will probably be with us throughout this winter, but Purple Finches have not been seen yet and will probably be scarce as usual. A flock of 50 birds seen October 24 proved shy, but were thought to be Starlings. This species has been rarely seen here since our 1928 and 1929 early spring records, when small numbers were observed. Ring-billed Gulls, a few Herring Gulls and a few of the "Hooded" Gulls (probably the Bonapartes Gull) appeared on the river about the middle of October and several Ring-bills are now to be seen in front of town. Small numbers of Lesser Scaup are to be seen there also. Ducks are reported unusually common this year, Mallards and Rink-necked Ducks being the most abundant species. Blue-winged and Green-winged Teal have both passed through this section, while Lesser Scaup and a few Black Duck, Pintail and Shovelers are now to be found here. Canada Geese are more common than for the last several years. The writer banded 500 Chimney Swifts on October 20, with the assistance of Mrs. Coffey, and older members of Scout Troop 1 (member T. O. S.), Rutherford Gartside, Robert Reinert and Erie Henrich. Probably 800 Swifts were released through a safety opening in the trap as they came out of the chimney, in order to prevent congestion in the trap, and approximately another 800 passed into the receiving cage. The 300 for which we had no bands were also released, after being examined for bands. None of the 800 captured bore a band from elsewhere. This is our first attempt here, and we hope to repeat this work next spring and fall. Gartside assisted me in the arduous construction of the cage and the trap necessary for the large chimney on top of the Masonic Temple, Fourth and Washington streets. —Ben B .Coffey, Memphis.

BLACK-BELLIED PLOVER AT KNOXVILLE: On October 6, one of these birds was taken on the field which comprises the municipal airport, about four miles east of Knoxville. Mr. W. O. Shelley, while out with his dog about noon, saw some boys shoot at a bird on the field, and on his approach they ran away, so he secured it. He was at some distance when the shot was fired, and if there was more than one of the plovers he did not see them. The specimen was prepared by S. A. Ogden and added to our local collection. It was in fall plumage, but measurements and the presence of the small fourth toe enabled accurate identification. I believe this is a first record for this species in Tennessee.—H. P. Ijams, Knoxville.

HAWKS AT BRISTOL: F. M. Jones of Bristol, Va., has given most of his leisure time during the past spring to searching for hawks' nests and reports considerable success. Since he is stationed at the State line, his data will apply to Tennessee as well as Virginia. In "The Raven" for May, he describes six nests of the Red-tailed Hawk, found between March 14 and April 30, containing from two to three eggs or young. In the June number he describes six occupied nests of the Coopers Hawk, found between April 21 and May 20, each containing four eggs. In the July issue he tells of eight occupied nests of the Broad-winged Hawk, found between April 25 and May 30, containing from two to four eggs each.

"BLUE DARTERS": For those who have trouble in distinguishing between the Coopers and the Sharp-shinned Hawks in the field, we give below their average measurements in inches:

	Sharp-shinned Hawk		Coopers Hawk	
	Male	Female	Male	Female
Total length	11.25 in.	13.50 in.	15.50 in.	19.00 in.
Wing	6.60 in.	8.00 in.	9.50 in	10.50 in.
Tail	5.50 in.	7.00 in.	7.75 in.	9.00 in.

It will be noted that there is but little difference in size between the female Sharp-shinned and the male Coopers; in fact, some female Sharp-shins are as long as 14 inches, while some small male Coopers are of the same length. The former has a square-ended tail, while the latter is rounded, but this is rarely apparent in flight. We are inclined to think the Sharp-shinned is a rather rare bird, at least in Middle and West Tennessee during the summer.

WINTER FEEDING: When this number reaches our readers, winter will be upon us in full force, most of the natural bird food in the way of berries and seeds will have been garnered, and the birds will be down to "hard tack" and scant rations. There is scarcely one of our members but whom can indulge in a feeding shelf, and those who would have more birds about their places in winter should set about installing one. A 12x24-inch board with a slat around the rim, nailed on a post or set at shoulder height in a tree, is all that is necessary. As the birds become accustomed to it, the shelf may be moved closer to a window. The birds prefer bread crumbs and suet, but gradually learn to eat nearly everything. English sparrows may have to be put up with unless one prefers to trap them out. For more complete details on winter feeding, look up Mrs. Laskey's article in our last December issue.

FAVORITE BIRDS: The following is submitted by one of our members. Perhaps it may lead you to prepare a similar list for fourself from your own experience.

"In looking through the long list if our Tennessee birds I find the following which appeal to me most:

Cardinal—Most lovable and a harbinger of Spring.
Mockingbird—Most admirable bird of all.
Bewicks Wren—A homey fellow with a sweet song.
Chickadee—A jolly sport, no matter what the weather.
Wood Thrush—With his spotted breast and sunset chimes.
Bob White—Nothing more cheerful than his call.
Pileated Woodpecker—A noble fellow, when you know him.
Red-wing—What more joyous than his "honk-a-ree-ree?"
Hummingbird—Tiny, yet hardy; the embodiment of vigor.
Kingfisher—His rattling call brings the stream to life.
Duck Hawk—Such a splendid savage.
Turkey Vulture—Who so enriches the landscape.
Meadow Lark—The meadows would be poorer without him or his song.
Titmouse—A pal for our walk through the winter woods.
Louisiana Water Thrush—Active sprite of babbling brooks.
Sycamore Warbler—Constant singer of the sycamores.
Hooded Warbler—Voice of the deep woods."

MEETINGS: The Nashville Section of the T. O. S. will meet bi-weekly during 1933, as follows: Jan. 2, 16, 30; Feb. 13, 27; March 13, 27, etc., at 7:30 p. m. in S-R. building of Peabody College. Bi-weekly meetings have been held regularly during the Fall. The Fall Field Day was held on Oct. 23, at Cave Spring, on the Hillsboro Road in Williamson County.

REVIEW: "The Water Birds of Radnor Lake" is the title of a paper by Harry C. Monk, in the October, 1932, number of the Journal of the Tennessee Academy of Science. This lake is a 90-acre reservoir, without marshy borders, situated in the high hills eight miles south of Nashville. Fifty-six species are annotated in such a way that their relative abundance can readily be understood and herein are recorded a number of species that have not been recorded elsewhere in this area. Mr. Monk has improved the opportunity presented by the presence of this lake by making a most painstaking study, the basis of which includes 337 trips to the lake during the past fourteen years.—A. F. G. (Copies of the Journal may be procured from J. M. Shaver, Editor, Peabody College, Nashville, for fifty cents.)

The Migrant is sent to all members not in arrears for dues. Active membership is one dollar a year; associate membership is fifty cents. Subscriptions to non-members is fifty cents. All articles, correspondence and dues should be addressed to the Editor-Treasurer, George B. Woodring, East Woodmont Bldv., Nashville, Tenn.

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Division of Birds

THE MIGRANT

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DEVOTED TO TENNESSEE BIRDS

Published by
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Vol
4

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THE MIGRANT

VOL. IV. MARCH, 1933 No. 1

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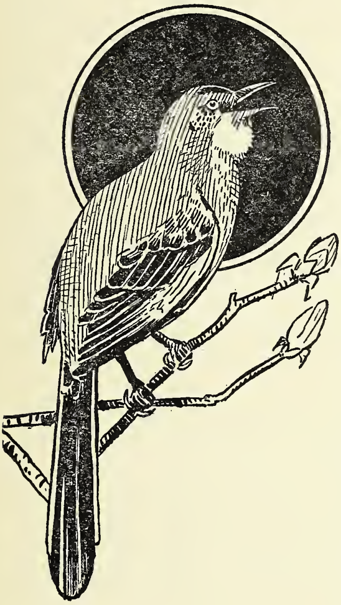
THE MOCKINGBIRD, STATE BIRD-ELECT

By BEN B. COFFEY



The Mockingbird! What a poetic picture is contained in the mention of that single name! Known by all of us, a friend of man near the cabin in the cotton or in the city yard, masterful and brave, graceful and inspired, and one of the most remarkable and versatile song birds of the world, this high-born Southerner is an ideal choice for Tennessee's state bird.

The Mocker is a beautiful bird to one who knows him intimately, as graceful actions and personality make up for sombreness of color. He is about the size of a robin but more slender. The plain light gray of his costume is enlivened by large white wing bars and outer tail feathers which show conspicuously in flight. A familiar sight along roads and around our homes, the Mockingbird may nest along the hedge rows, but generally he builds close about our homes. Dense thickets or bushes, thorn trees, or vines are preferred. The rather bulky nest holds 4 or 5 blue, brown-spotted eggs. Its chief enemy during nesting or any other season is the cat—the stray or the well-fed pet. They will bravely defend their nests against any intruder and are a match for nearly all birds, large or small. This species is one of our most beneficial birds, economically speaking, but who would wish to evaluate this master musician in terms of bugs and weed seeds? If fruit is occasionally molested, plant enough for yourself and your Mockers as well.

Edward H. Forbush, the famous New England bird authority. wrote: "The Mockingbird stands unrivaled. He is the king of song. . . . He equals and excels the whole feathered choir and improves upon most of the notes that he reproduces." The wonderful originality of the Mocker's own song is also commented upon. The inspired ecstasy and energy the bird puts into the performance in spring, holds the observer spellbound and the beauty of setting and song on warm moonlight nights appeals to the poet that is in each of us. The song is much superior to that of the Nightingale of Europe, according to no less an authority than Audubon.

The Mockingbird is common thruout Tennessee, being chiefly non-migratory. In the southwestern part of the state, where it is one of the most abundant breeding species, the song period extends thruout the year; elsewhere, 9 to 10 months of the year. Already the state bird for Texas, Arkansas, Mississippi, Florida and Louisiana, its selection by Tennessee will accentuate the fact that this famed songster is truly a Southern favorite.

Memphis, Tenn.

NOTE: The above article is one of 15 which appeared during the campaign.—Ed.

THE "STATE BIRD" CAMPAIGN

By WAYLAND HAYES

In the December issue of *The Migrant*, the President of the Tennessee Ornithological Society, Mr. Ben B. Coffey of Memphis, stated that Tennessee was one of the five states which had not selected a state bird, and that it was desirable that such a symbol be chosen. Because he regarded the Tennessee Ornithological Society as the logical and authoritative group to deal with the matter, he outlined the purpose, suggested a program, and appointed a committee for an educational campaign and popular selection of a representative State Bird. He declared the value of the campaign to be, "not so much the having of an official emblem, but in taking this opportunity to awaken an interest in birds and their value on the part of the average person." He proposed that fifteen suitable birds be selected as candidates, and that all avenues of publicity be used to make these candidates known. He appointed a campaign committee, consisting of Dr. George R. Mayfield, Nashville, Chairman, who was assisted by R. A. Wilson, Nashville; John Bamberg, Knoxville; Miss Jacqueline Hall, Memphis; and Bruce P. Tyler, Johnson City.

The results of such a far-reaching educational venture cannot be measured, but it is now time for a brief review of the campaign and a tentative evaluation of its accomplishment. Although members of the Tennessee Ornithological Society in different parts of the State gave devoted support and although many agencies cooperated fully, the thorough-going success of the campaign is primarily due to the fine vision and sustained effort of the chairman. He stimulated the interest and co-ordinated the work of the many agencies participating in the work.

The campaign began when the three chapters of the Society considered many claimants and finally nominated 15 candidates. In general the bases for nomination were state-wide distribution, beauty and distinctiveness of marking and song, economic value, and permanent and nesting residence. The candidates were: Mockingbird, Robin, Cardinal, Bluebird, Wood Thrush, Chickadee, Bewick Wren, Pileated Woodpecker, Flicker, Brown Thrasher, Field Sparrow, Sparrow Hawk, Towhee, Meadowlark, and Bob-white. Excellent drawings of the candidates were made by John Cross of the Nashville Banner and zinc etchings of these were made for use in the various newspapers. These drawings, accompanied by descriptive articles written by members of the Society, were published in seven of the leading daily newspapers located in the cities of the State. These articles and much other information relative to birds appeared also in the weekly papers. Educational comment was frequent and widespread, and the extent of newspaper interest was further indicated by reference to the campaign in feature columns and in cartoons.

The State Department of Fish and Game, through its able Commissioner, Damon Headden, gave enthusiastic moral support and supplied much material assistance as well. By the aid of this Department, the Department of Education, and the Parent-Teacher Association, nearly all schools in the State were reached. Activities, including field trips, discussion, reading, collecting books and pamphlets, hearing lectures and observing State Bird Day, were outlined and sent to all schools in the State. After such activities it was possible for children to base their choice of State Bird on actual information. It is significant to record the fact that the Governor's proclamation regarding the observation of Bird Day was read in nearly all schools. Garden Clubs throughout the State were intensely interested, and one of their chief publications, the *Southeastern Flower Grower*, made favorable editorial comment relative to the conduct of the campaign. Posters and window displays were used in several cities, so that thousands upon the streets paused and were probably stimulated to learn more about birds and come to appreciate them more deeply. Radio stations were generous in allowing members of the Society to present interesting material and suggest activities relative to the campaign.

It might not be out of place to state that the campaign had its humorous side, and many a wise crack must have been born out of it. In view of current beer legislation, one man suggested the Swallow. One editor would choose the Stork, and another the Dodo, while still another thought the Cuckoo would be an excellent emblem. The Jay, because of his skill in taking care of himself at the expense of others, was offered for consideration.

Since over a million people were reached by one means or another, it may be said that many thousands came to know much more about their bird neighbors and acquired their first experience in looking for birds and listening to their songs. Undoubtedly, the appreciation of song and beauty has been deepened, interest has been directed, and conservation has been promoted. The Tennessee Ornithological Society will probably wish to continue the education which was so successfully begun. A follow-up program may soon be undertaken.

A final count of the votes cast showed that the Mockingbird received the greatest number with 15,553, followed by the Robin with 15,073, Cardinal 13,969, Bob-white 10,460, Bluebird 9,125, and all others 8.751. a total of 72,931. The counting of the huge ballot was handled by the State Department of Fish and Game. As *The Migrant* goes to press, legislation is being presented to make the choice of the Mockingbird legal and official.

Nashville, Tenn.

* * *

TWO MARCH DAYS AT MULLINS COVE

By ALBERT F. GANIER

The Tennessee River in cutting its winding way through Walden's Ridge has formed one of the most picturesque canyons east of the Mississippi. Varicolored sandstone cliffs, which form almost an unbroken escarpment along the plateau's brow, yield an interesting skyline for the heavily wooded slopes which meet the great river below. For thirty-five miles the stream winds its course with no level land on either side, for what formerly did exist has been flooded with the back water from the Hale's Bar power dam. The few inhabitants who formerly lived along the river have nearly all moved away, and the area north of it, many miles deep in rough, wooded and uninhabited country. forms a stage ideally set for the restoration and conservation of wild life in its primitive state. The scenic gem of this canyon is Mullin's Cove, for here great mountain spurs converge, each fringed with high palisades which look down upon a mirroring lake of 400 acres formed by the water having backed up into the mouth of the Cove.

On March 5 it was the writer's pleasure to visit this picturesque spot in company with and as the guest of Dr. W. H. Cheney of Chattanooga, whose vision a few years ago led to the organization of a club of prominent men from that nearby city, to take over the area for conservation purposes, build a club house, purchase 2,000 acres of land and secure rights to 25,000 more for use as a game refuge. As a starter toward restocking the area, twenty-two deer have been acquired, also three elk and 300 Ring-necked Pheasants. When the Nashville Zoo was disbanded, several bear and three llama were purchased and the latter present an odd sight when one comes across them in the open woodlands. Of great interest is the fact that here are to be found many Wild Turkey, for in this favorable locality they have managed to persist and to increase considerably because of the protection that has been given them during the past few years. Bill McNabb, local game warden and overseer of the preserve, estimates that there are at least 150 turkeys nearby, which doubtless represents by far the largest assemblage of these now rare birds in any Tennessee locality. A two-hour hike before lunch time enabled us to inspect and climb among the great cliffs and view the panorama far below us. Their elevation is about 1,800 feet above sea level, while the river flows 1,100 feet below their crest. McNabb pointed out where he trapped the Golden Eagle, about the middle of February, 1930, and of which Dr. Sanborn wrote in *The Migrant* for December, 1932. This point was about two miles up the Cove from the river and opposite a continuous line of cliffs, at some places more than 100 feet in height. The eagle had been surprised late one afternoon at the carcass of a small pig which it was believed he had killed. Four traps were set early the next morning, and when revisited at noon he was found a captive. One toe was noted at the time to be missing. At that date this eagle would appear to have been "settled" for the breeding season, and since the environment is all that this species could wish for, a pair doubtless nest in this locality. At the mouth of Shoal Creek, five miles east, H. C. Monk and the writer saw a Golden Eagle close at hand on March 29, 1925, and several others have been reported killed near Chattanooga. The Bald Eagle, too, is represented at Mullins Cove. In May, 1932, McNabb wrote me that several were to be seen almost daily there. On my visit of March 5, I had the pleasure of seeing one, in all dark plumage, patrolling the drift which the current was piling up in the willows at the river's edge. McNabb told me that he had observed a pair, engaging in courtship flight, about two weeks previous, one at least, with white head and tail. He later reported that on March 20 he observed the white-headed one again, soaring above the lake. From the motor boat, on the lake and river, we listed a Great Blue Heron, several Double-crested Cormorants, and many hundred ducks.

On March 26, Dr. Geo. R. Mayfield, my son Albert, Jr., and the writer spent an interesting day in the Cove. Having arrived the day before, we were able to be afield by 7 a. m., and made our way up the slope toward the cliffs above Dry Creek. Heavy stands of pine were encountered frequently and we kept a close lookout for Red-cockaded Woodpeckers, one of the rarer species we had hoped to record, but without success. A backward season found the deciduous trees still entirely bare of leaves, but plants were a-bloom under foot, among which were birds-foot, blue and yellow violets, and trailing arbutus. At several points we came across patches of wild ginger with buds appearing between the broad evergreen leaves and, clinging to the cliffs, the evergreen yellow jessamine vine was showing its yellow blossoms. As we neared the top, a Duck Hawk shot down along the cliffs, giving vent to its noisy cry and we checked off another rare bird we had hoped to see. A short distance around the point we reached what we believed to be his eyrie; a massive red, broken-faced cliff in which there was a cave-like pocket which showed signs of usage. On a projecting rock at the top of the cliff we found bones and feathers of the Flicker, Cardinal and a small woodpecker, all evidences peculiar to the eyrie of this falcon. On bushes nearby we found bits of the breast down of a brooding raptore. Further on, as we rounded another point, a Black Vulture flapped noisily and with hissing protest from a cave in the cliff, and on descending into it we found two fresh eggs. No others were seen, but several pairs of Turkey Vultures hung along the escarpment and threw their shadows in front of us to let us know we were being watched. Another dweller of the cliff was a magnificent Red-tailed Hawk, which soared and wheeled about with but little fear. At this date his mate was probably incubating her eggs. Under and in the cliffs we found large piles of acorns and hickory nuts, from most of which the contents had been removed; this was probably the work of cliff rats. Time prevented a careful search of the escarpments, particularly those which extended for some miles up Mullin's Cove, and in which we had had hopes of finding the eyrie of a Golden Eagle, so we have promised ourselves another visit to the place. A short time spent at the shore of the lake and on our return in the motor boat, resulted in the listing of Double-crested Cormorant 2, Golden-eye Duck 1, Lesser Scaup Duck, a pair; Great Blue Heron 1, and an Osprey. McNabb said the latter had nested nearby for some years and showed us a large chestnut tree in which last year's nest had been built. Our list for the day comprised 41 species.

Nashville, Tenn., March, 1933.

CHRISTMAS CENSUS, 1932

Location.	Nashville, Tenn.	Memphis, Tenn.	Paris, Tenn.	Shiloh Park, Tenn.	Johnson City, Tenn.	Corinth, Miss.	Bowling Green, Ky.
Date	Dec. 26	Dec. 25	Dec. 26	Dec. 26	Jan. 1	Dec. 20	Dec. 26
Number of species	66	54	31	42	35	29	48
Number of individuals	5244	2204	283	7982	817	176	7687
Number of observers	15	5	6	9	2	1	4
Pied-billed Grebe	1	—	—	—	—	—	—
Canada Goose	—	6	—	—	—	—	43
Mallard	87	3	—	—	—	—	—
Black Duck	80	—	—	—	—	—	—
Gadwall	7	—	—	—	—	—	—
Lesser Scaup	68	12	—	—	—	—	—
Ring-necked Duck	140	9	—	—	—	—	—
Canvasback	3	—	—	2	—	—	—
Golden-eye	4	—	—	—	—	—	—
Baldpate	1	—	—	—	—	—	—
American Merganser	1	—	—	—	—	—	—
Bufflehead Duck	—	—	—	—	1	—	—
Turkey Vulture	—	2	3	10	4	—	6
Black Vulture	6	1	—	3	4	—	22
Cooper's Hawk	—	—	1	—	1	1	—
Red-tailed Hawk	4	1	—	2	1	—	1
Red-shouldered Hawk	2	1	1	—	—	—	—
Marsh Hawk	—	—	—	1	—	—	4
Sparrow Hawk	19	5	—	—	2	1	9
Bobwhite	56	8	—	12	—	—	11
Coot	86	—	—	—	—	—	—
Kildeer	47	3	1	1	6	1	—
Wilson's Snipe	1	2	—	—	—	—	—
Herring Gull	—	1	—	—	—	—	—
Ring-billed Gull	1*	—	—	—	—	—	—
Herring or Ring-billed Gull	—	12	—	—	—	—	—
Mourning Dove	73	—	35	15	8	1	60
Screech Owl	2	—	1	—	—	—	—
Barred Owl	1	—	—	—	—	—	—
Great Horned Owl	—	1	—	—	—	—	—
Kingfisher	3	1	—	—	—	—	—
Flicker	53	40	—	25	2	9	25
Pileated Woodpecker	10	—	—	1	—	3	2
Red-bellied Woodpecker	22	30	—	20	1	4	10
Red-headed Woodpecker	1	24	7	24	—	—	26

Yellow-bellied Sapsucker	4	2	9	3	--	--	1
Hairy Woodpecker	6	2	4	--	--	2	2
Downy Woodpecker	36	15	5	8	20	--	24
Prairie Horned Lark	25	--	--	--	25	--	466
Blue Jay	46	125	13	42	20	5	74
Crow	105	11	15	12	14	--	1250
Carolina Chickadee	117	40	12	24	10	6	131
Tufted Titmouse	61	26	5	16	15	--	89
White-breasted Nuthatch	4	--	3	3	1	--	8
Brown Creeper	4	8	1	1	--	1	6
Winter Wren	4	3	1	1	1	3	3
Bewick Wren	5	--	--	--	--	--	7
Carolina Wren	59	70	2	15	25	3	45
Mockingbird	135	40	14	8	20	1	28
Brown Thrasher	--	2	--	--	--	1	--
Robin	478	75	1	30	40	20	119
Hermit Thrush	9	1	3	2	--	3	6
Bluebird	116	20	15	40	10	15	69
Golden-crowned Kinglet	11	25	--	12	--	3	7
Ruby-crowned Kinglet	--	1	--	--	--	1	--
Cedar Waxwing	43	4	--	--	--	35	--
Migrant Shrike	2	--	--	--	1	--	--
Loggerhead Shrike	--	5	--	--	--	--	--
Starling	1620	8**	--	--	400	--	3800
Myrtle Warbler	26	31	--	5	28	--	4
Meadow Lark	89	90	1	105	10	4	86
Red-wing Blackbird	--	15	--	6	--	--	1
Rusty Blackbird	--	20	--	2000†	--	--	6
Bronzed Grackle	240	340	3	5000	--	--	27
Cowbird	20	1	--	--	--	--	--
Cardinal	239	75	21	24	28	5	140
Purple Finch	3	--	--	--	--	--	58
Goldfinch	37	50	2	20	20	--	132
Towhee	58	18	5	18	6	5	62
Savannah Sparrow	9	--	--	--	--	--	1
Fox Sparrow	9	4	1	1	--	1	--
Slate-colored Junco	278	100	65	250	40	20	390
Field Sparrow	75	21	--	36	4	6	8
Tree Sparrow	--	--	--	--	--	--	167
Chipping Sparrow	1*	1	--	3	--	--	--
White-crowned Sparrow	42	--	--	--	15	--	48
White-throated Sparrow	294	730	16	130	8	12	41
Swamp Sparrow	9	1	--	1	--	2	31
Song Sparrow	103	70	17	50	20	3	131
House Sparrow	35	—	—	—	10	—	—

*On Dec. 25. **On Dec. 21. †One flock. —Present, but not counted.

NASHVILLE: Semicircular area southeast of Nashville from the Gallatin Road to the Harding Pike, including Cumberland River bottom above Shelby Park; Knapp Farm, Radnor (84-acre) Lake, Granny White and Hillsboro Pike area, Warner Park, Belle Meade, Mest Meade and city suburbs, including Mrs. Laskey's and Mrs. Cochran's banding stations. Observers: G. R. Mayfield, H. R. Caldwell, Ernest Spain and Harry Monk; A. F. Ganier, Wayland and Jack Hayes; George Woodring, McTyiere Yarbrough, Vernon Sharp, Jr.; J. M. Shaver, H. S. Vaughn, Mrs. Arch Cochran, Mrs. F. C. Laskey, Mrs. Sanford Duncan.

MEMPHIS: December 25, 10 hours, fair, temperature 53-65; Raleigh, Wolf

River Bottoms, National Cemetery, points in city, Mississippi River front, Riverside Park, Piney Woods, Airport, Overton Park. Dr. LeRoy up river in motor boat. Ben B. Coffey. Jr., and Mrs. Coffey, Dr. Louis LeRoy, Henry Turner and Jack Embury.

SHILOH NATIONAL MILITARY PARK, TENN.: Dec. 26, 8 hours, overcast; temperature, 38-44, southeast of Pines Rest Hotel, ravine south of Pittsburgh Landing at Tennessee River, through park to Snake Creek. Mr. and Mrs. B. B. Coffey, Jr., R. Reinert, J. Embury and H. Turner (Memphis), Benjamin Warriner, Elgin Wright, C. Wigginton and J. Galyean, Jr. (Corinth).

PARIS, TENN.: December 26, 8 hours, clear; temperature, 42-46. North from Paris to Hill Top, west to Country Club, southwest to Fishing Club Lake, south to Jernigan Farm, etc. Buster Thompson, Paul R. Crosswy, Scouts R. Reynolds, F. Morris, E. Willoughby and W. Richardson.

JOHNSON CITY, TENN., AND VICINITY: Jan. 1, 1933; all day. Bruce P. Tyler and Robert B. Lyle.

CORINTH, MISS. (about 4 miles south of Tennessee line): December 20, 5 hours, cloudy; about 6 miles on foot, in area about Lake Waukomis. Benjamin R. Warriner.

BOWLING GREEN, KY. (about 22 miles north of Tenn. line): December 26, 6 a. m. to 5 p. m. Messrs. Gordon Wilson, Lancaster, Taylor and Jones.

* * *

REVIEW:—The appearance of a new state list is always a noteworthy event to bird students. In the last few years a number of these lists have been published by other states, some of them on quite an elaborate scale. Now we have an up-to-date summary of our own bird life from the pen of Mr. Ganier. This 64-page pamphlet, entitled, "A Distributional List of the Birds of Tennessee,"* gives data on 302 kinds of birds. This number includes twenty species that have not yet been found within the state but are considered by the author to belong to our fauna. Also included are three species now extinct, but of historical interest; four forms that have wandered to Tennessee from distant regions. and two kinds of game birds, introduced by sportsmen. Under each species are brief notes on its status, arranged in three columns, one for each grand division of the state. This method of presenting data is very compact, and greatly facilitates reference.

Following the list proper there are 17 pages devoted to discussion of various topics of interest, as the headings will show: Geographic Regions, Economic Importance, Regarding Hawks and Owls, A Word about Buzzards, Pests among Birds, Enemies of Birds, Are Birds Becoming Scarcer?, How to Attract Birds, Bird Houses, The Study of Birds, Government Publications, Other Literature, Migration, Enlisting the Interest of Young People, More Game Birds, State Parks and Sanctuaries. An index completes the work.

This list is "Tennessee Avifauna No. 1," and a second number of this series, from the same author, has also appeared, entitled "Water Birds of Reelfoot Lake, Tennessee."† There are 59 species treated in this paper, which is illustrated with a map of the region and 5 photographic plates showing views in the colonies of water birds. Tennesseans, especially those who live in the upland and mountainous parts of the state, should find this list of considerable interest, as it treats of a type of bird life all too rare in our state. It is interesting to know that Tennessee possesses what is probably the largest colony of Egrets in the interior of the continent.—H. C. Monk.

*Tennessee Avifauna, No. 1. "A Distributional List of the Birds of Tennessee," by Albert F. Ganier, Jan., 1933, pp. 1-64. Price, 50c.

†Tennessee Avifauna. No. 2. "Water Birds of Reelfoot Lake," by Albert F. Ganier, Feb., 1933, pp. 1-24 illust. price 35c. Both published by the Tennessee Ornithological Society. at Nashville.

THE ROUND TABLE

THE SEASON AT MEMPHIS: The sleet and ice which did such severe damage to the trees within about 90 miles of Memphis, Dec. 14-17, brought Starlings here in small numbers. Earl Henry had reported two small flocks in early December and on the 21st I noticed 6 of them with a few Meadowlarks. On our Christmas census trips we failed to find any, despite a special search. Our second and last cold spell, which occurred about the first week of February, brought larger flocks, and I had several inquiries about the "strange bird." A flock of about a thousand tried to roost in the vines and under the eaves of a house and in nearby bushes. Mrs. Coffey saw a flock temporarily alighting on the Columbian Mutual tower downtown, and Mr. B. L. Mallory reported large flocks in and among dwelling rows in South Memphis.

For the first year, as far as I know, a few Chipping Sparrows have spent the winter with us. The sight of four Lesser Yellowlegs at the Lakeview (Miss.) barrow pit moved up my earliest date for this spring migrant from March 17 to March 5. My records on shore-birds are incomplete at present. Other arrivals are: March 18, Purple Martin (1931-2-3); 19th, Rough Winged Swallow, Blue-gray Gnatcatcher (in numbers), Black-throated Green and Sycamore Warblers, Louisiana Water Thrush and American Egret; 23rd, Chimney Swift; 25th, Pectoral Sandpiper (50 at Somerville, Tenn., airport); 26th, Black-and-White Warbler (at Savannah, Tenn.); 28th, Yellow-throated Vireo; April 2, Tree Swallow (12), Green Heron (1), and Parula Warbler. 3rd, Hooded Warbler; 4th, White-eyed Vireo and Wood Thrush. I expect migrants to arrive earlier than usual this season.

The Lakeview barrow pit, which dried up last summer, is about two-thirds full, but most of the old weed stalks were burned off. However, three Pied-billed Grebes were seen there on April 2nd, and perhaps they may nest there again. No Rails were seen, very little cover being afforded them at present.

Local members meeting April 10th and 24th (every second and fourth Monday) will soon plan a field trip for Lakeview in early May. Several will attend the Reelfoot Lake meeting of the Tennessee Academy of Science and a trip to Horseshoe Lake, Ark., is planned for April 9th. An all-day search for the Brown-headed Nuthatch in the pines southeast and south of Savannah, Tenn., failed of its objective. Mr. B. R. Warriner found five March 20th, and two March 24th, at Waukomis Lake, near Corinth, Miss., which is about four miles south of the Tennessee line.—Ben B. Coffey, Jr., Memphis.

STARLINGS AT DYERSBURG: I had never seen a Starling before, but one morning about the 17th of December, one appeared at my feeding shelf outside the window, and immediately after I had identified it, others came by the dozens. Then my friends began to phone to see if I knew what the "strange bird" was. Evidently it was an unusual occurrence, for nobody here had seen them before. One man said that there were at least 300 on his lawn that day, and another said that they were in droves at his place. They came in numbers to my sister's lawn and fed on her bird table for three days. Then they disappeared as suddenly as they had come, and not even a straggler remained.—Mrs. J. S. Scott, Dyersburg.

LAUGHING GULL AND OTHERS AT KNOXVILLE: On Sept. 18, last, a group of our local observers made a census for the day and had the good luck to list 72 species of birds. Part of the time was spent upon gravel bars at Baker's Shoals on the Tennessee River, which were much exposed on account of the very low stage of the water. Here we had the pleasure of watching a flock of 6 Laughing Gulls, *Larus atricilla*, and on account of their unexpected presence here we collected a specimen which was later mounted by S. A. Ogden for our collection. It was sent to the U. S. Biological Survey, where Mr. A. H. Howell verified the identification. They were feeding on mud flats at the edge of the gravel bars below the mouth of a sewer, and were rather unsuspicious. They had been in the vicinity since September 11 and remained until September 25. All were in winter plumage. This is a bird of the South Atlantic coast, and the present record is the first one for the State. Associated with the gulls were Lesser Yellowlegs (10), Solitary Sandpiper (15), Semipalmated Plover (1), Semipalmated Sandpiper (4), Spotted Sandpiper (6), and a number of Kildeer. A Sharp-shinned Hawk tried to flush the shorebirds, but they would not leave the ground. On December 23 a new bird was brought in and added to our collection; it was a White-winged Scoter, *Melanitta deglandi*, a female, which had been shot on the French Broad River, near here, by Robert Bolton. Miss Lucy Templeton reported a Brown Thrasher at a feeding station on February 6 and was told it had been there all winter.—Harry P. Ijams, Knoxville.

JUNCOS WITH WHITE WING-BARS IN TENNESSEE: During January and February of 1933, fifty-eight Juncos were banded at "Blossomdell Station." Among them were two birds with unusual markings and possibly the first noted in Tennessee with white wing-bars. One Junco, banded H32746, had the greater and lesser wing coverts partially tipped white, giving the appearance of two narrow, broken wing-bars. The tail had the two outer pairs of feathers entirely white; the third pair white with a long streak of dark along the shaft; and the fourth pair, dark with a very small spot of white at the tip. The other Junco mentioned, banded H32709, also had the greater and middle wing coverts edged white, but the wing-bars thus formed were clear, distinct and conspicuously white. Notes for the day describe the tail; two outer pairs of feathers white; third pair mostly white. Unfortunately, the writer failed to have the identification verified or measurements taken, but the latter bird, at least, seems to fit the description of the White-winged Junco (*Junco aikeni*). This race of Junco, according to Ridgway, breeds in Wyoming and western North Dakota; winters in Colorado, western Kansas, casually to Indiana and Wisconsin. There are also nesting records of this subspecies in the Black Hills of South Dakota (Wilson Bulletin, Vol. 42, p. 28). It is hoped future banding operations will definitely decide the status of this race of Junco in Tennessee by either recapturing these banded birds or trapping others with similar markings.—Mrs. F. C. Laskey, Nashville.

A WHITE-EYED TOWHEE AT NASHVILLE: The range of the White-eyed Towhee (*Pipilo erythropthalmus alleni*), is only known to be Florida and northward to South Carolina, yet on Sept. 13, 1932, in the outskirts of the southwest part of Nashville it was the writer's good fortune to trap a Towhee of this description. For several days previous to the capture, in the dense undergrowth there had been heard a Towhee call of shorter duration and lighter in timbre than the usual adult call. No special significance was attributed to it until after capturing, and while adjusting band No. C-143474, the bird was found to have pale straw-colored iris and the eye itself was circled with a thin line of white feathers much like our robins. The bird, a female, repeated on Sept. 21, and was neither seen nor heard after that day. Several of our common Red-eyed Towhees were trapped at this station during the interval. Certain water birds, such as the Wood Ibis and Little Blue Heron are known to indulge regularly in a northward movement after their breeding season and a similar urge may have brought this Towhee north of its regular range.—Mrs. Ana Cochran, Nashville.

AN ALBINO JUNCO: On January 15, 1933, Mr. and Mrs. James Stokes requested us to call at their place, 18 miles southwest of Nashville, to identify a small white bird. We were told that it had arrived during the very cold spell of mid-December, and that it had been seen regularly since then, feeding in their yard, and in nearby brush patches with a number of other Juncos, Song and White-throated Sparrows. We found it shortly and noted that its actions, size and contour checked with that of the Juncos. Presently we were enabled to see its whitish bill quite distinctly, and this clinched its identity, for albinism does not affect the normal color of a bird's bill. It was truly a "Snowbird," for its plumage was entirely white except for a small slaty patch on each shoulder. The bird remained through the winter and left during the last week in March. Mr. Stokes reported that toward the last its plumage took on a light brownish cast.—G. R. Mayfield and A. F. Ganier, Nashville.

NESTING OF BLUE-WINGED AND BLACK AND WHITE WARBLERS: These records are presented, not because of the rarity of either bird, but because the nests of both species are habitually so well hidden that there are very few records of either for the Nashville region. On May 11, 1930, a nest of the Blue-winged Warbler, *Vermivora pinus*, was found near Pinhook Creek, about eleven miles northwest of Nashville. The locale was typical for the bird, a rolling hillslope covered with patches of scrubby brush, blackberry briars, and sedge. The nest was compactly built into a niche between a small clump of sedge and a clump of violets, in bloom. It contained five eggs, incubated about three days. The male bird sang constantly within a hundred feet of the brooding female, and seemed to prefer a high perch, thirty feet or more above the ground, while so engaged. An occasional singing male may be heard, usually in the Highland Rim country west of Nashville, until well into June, indicating local nesting throughout this area. A nest of the Black and White Warbler, *Mniotilta varia*, was found on May 1, 1932, near the Hyde's Ferry Road, some nineteen miles west of Nashville. The birds had chosen the crest of a lightly wooded, south-facing escarpment, looming two hundred feet above the Cumberland River, as a nesting place. The nest was half domed, placed in a crevice in a tiny rock ledge at the base of a small sprig of huckleberry. The female flushed only when the nest was almost stepped on. Then she gave as complete an exhibition of shamming and feigned lameness as the writer has ever seen. No shore bird ever put on a better performance. The male bird was feeding and singing at the foot of the cliff, some hundred and seventy-five feet below the nest site, and, though H. C. Monk and the writer had spent possibly an hour in the vicinity, he did not approach the nest until the alarm notes of the female brought him. The five eggs were found to be incubated almost to hatching, indicating an earlier extreme nest date than has heretofore been assigned this Warbler. The Black and White Warbler is a fairly common summer resident, chiefly in the upland woodlands of the Nashville region.—Compton Crook, Nashville.

A NEST OF THE GREAT HORNED OWL: In Middle Tennessee, this large owl nests in the deep woods, using old hawk nests, hollow trees, and in cliffs which border the rivers. The cliffs are also the homes of the cliff rat and it is believed that the owls catch and eat many of these rodents. On January 25, 1933, one of these birds was observed sitting on an old hawk's nest, and, not having personally collected a set of their eggs, I decided, by the aid of Vernon Sharp, to attempt the collecting of this set. The location was the Overton Hills, near Radnor Lake, five miles south of Nashville. The nest was 89 feet up in a poplar of considerable size, with no limbs up to thirty-five feet. This chanced to be the tree and nest from which Vernon took a set of Red-tailed Hawk eggs several years ago. The effort made at that time was still vivid in his memory. Although the climb was a difficult one, Vernon was not to be bluffed after all the preparation we had made for the occasion, so he donned the belts and spurs and went to the task. After two and a half hours he returned to earth with the two round white eggs as compensation. They were incubated 5 days. Fearing lest he or someone else might be tempted to undertake the climb again, he decided to dump the old nest from its perch, which he did.—H. S. Vaughn, Nashville.

NOTES ON STARLING ROOSTS: A rough estimate of ten thousand Starlings found a roosting site around Spence Lane near the Lebanon Pike, a few miles east of Nashville, in early January. When visited on the 9th, 10th and 11th, they were found using deciduous trees, such as the oak, elm, hackberry, and a few poplars. They even roosted on the cross-bars of the nearby telephone poles. About ten of the farmers of that section made a lark of stationing themselves for two successive nights under the trees, one man to a tree, and at a given signal they fired at one time into the roosting birds. As many as forty were killed by one man. The third night of my visit the birds moved about a mile east, but on the next night they settled in Mt. Olivet and Calvary cemeteries, where they remained for over a week in more or less dense bands. While in the cemeteries they selected the evergreens as roosting sites first, then the overflow took to the bare trees. The Starling has been more abundant than usual, all during the past winter.—Mrs. Ana Cochran, Nashville.

BOB-WHITE IMPORTATIONS: During 1932, the State Department of Fish and Game imported and liberated in Tennessee about 5,700 Texas Bob-whites, more often called "Mexican Quail," because they are trapped south of the Rio Grande. In lots of from 12 to 50 they were liberated on suitable tracts, which were closed to hunting for three years. The minimum size of such tracts was 250 acres, and a total of many thousand acres, in counties throughout the State, has thus been tendered. The project was carried out at a cost of approximately $10,000. The United States Biological Survey Report for 1927 mentions 1,058 having been released during that year, but the State Game Warden has no records prior to 1932. An additional 6,000 were imported and distributed in March, 1933, by our new State Game Warden, Mr. Damon Headden. The "Mexican Quail" is slightly smaller and has a greyish cast of plumage, as compared with our more richly-colored native stock. According to H. L. Stoddard, eminent authority on the Bob-white, they stand transplanting well and readily cross with the native birds. From the hunter's standpoint, it is claimed that they are not as satisfactory as the local species, for the reason that they are more apt to run than to "stand" before the dogs.

DICKCISSEL IN EAST TENNESSEE: In an old ornithological journal we find what appears to be the only record of the nesting of this species in that section of the State. In 'The Oologist," of Utica, N. Y., for March, 1870, G. S. Smith writes as follows: "Although the Dickcissel is considered very impartial to water, I found my first nest of this species within two feet of the current of a small stream emanating from the lofty peaks of the Unaka range in Eastern Tennessee. I was following the banks, trout fishing, when my attention was attracted by a wisp of straw caught, it seems, by some previous inundation, in a species of large fern. On closer examination I found it to be a nest composed entirely of straw and woven with great labor into a homogeneous mass. In this nest, which was about six inches above the ground, lay one fresh egg, which I collected. I took another set of this species at Morristown, Tennessee, on August 1st. Its structure did not differ essentially from the first, but it was built in a bush some four feet from the ground in the center of a high pasture. It contained four eggs of an azure blue color."

OUR NEW PUBLICATIONS: Reviewed on another page one will find an outline of the contents and character of the first two numbers of Tennessee Avifauna. This series is being launched to take care of papers on the ornithology of Tennessee, too lengthy to be published in *The Migrant*. It is fitting and proper that number one in the series should be a list of the birds of the State. One or two additional numbers are already in prospect, and it is to be hoped that our members will use this medium for conveying to their co-workers suitable papers on the results of their studies and investigations. Even if we produce but one or two numbers each year, the series will be worth while. Literature on Tennessee bird life is as yet quite meager, and each of our members should order a copy of numbers one and two in order that this feature of their library may be complete. Only a very limited edition of each has been published.

CATS, ETC.: As the nesting season approaches, such birds as choose to dwell about our homes are anxiously searching for some relatively safe place in which to build their nests. Cavity nesting birds must live in dread of snakes, while those which nest in trees are confronted with the fear that greedy grackles or saucy jays will make off with their eggs. The greater portion of our home birds, however, nest in vines and shrubbery, and here their greatest enemy is the pampered house cat, which dozes by day, but becomes the cruel midnight marauder when put out the kitchen door for the night. One of our members reports three nests of a pair of Cardinals at his home broken up in succession by cats, which finally captured the female as she hovered her young. Cats may be trapped most easily using raw fish as bait, in box traps such as are used for catching rabbits. Grackles can easily be trapped on one's lawn, with pull-string or other traps.

The results of our Christmas census, printed on another page, were most gratifying. Each year this midwinter listing is looked forward to by our members with keen interest, and it serves to illustrate as nothing else can, how many birds are to be found in midwinter. The Nashville list of 64 species for one day broke the previous record of 62, made in 1927. We have included in the report two lists from just beyond our State borders.

Members who live west of the Cumberland Plateau are requested to be on the lookout for nesting pairs of Starlings and to report them to the editors.

The Annual Spring Field Day of the T. O. S. will be held at some attractive spot near Nashville, on Sunday, May 14. A state-wide attendance is hoped for. Our Knoxville Chapter will have a Field Day on April 30.

The editorial staff of *The Migrant*, for 1933, is as follows: George B. Woodring, Editor; Albert F. Ganier, Associate Editor; Vernon Sharpe, Jr., Business Manager. Regional Assistants: Ben B. Coffey, Memphis; George R. Mayfield, Nashville; H. P. Ijams, Knoxville; and Bruce P. Tyler, Johnson City.

The Migrant is sent to all members not in arrears for dues. Active membership is one dollar a year; Associate membership is fifty cents. Subscription to non-members, sixty cents. All articles, correspondence and dues should be sent to the Editor-Treasurer, G. B. Woodring, 1414 Stratton Ave., Nashville.

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A DAY IN "CRANETOWN"

By HARRY S. VAUGHN

On Saturday, May 28, 1933, five members of the Tennessee Ornithological Society left Nashville at noon and motored westward, some 200 miles to Reelfoot Lake. We arrived at Samburg in good time for a fine dinner of fresh fish, and immediately made our arrangements with Dee Shaw, local warden, for an early morning start. The State's lodge at the Spillway, having been placed at our disposal for the night, we repaired there and were shortly joined by five of our Memphis members under the leadership of Ben B. Coffey. After a prolonged exchange of bird news and other pleasantries we turned in for a good night's rest. Our course next morning, from Samburg, lay across about four miles of chiefly open water, so two motor boats were engaged and to the rear of these six light skiffs were tied. When we had crossed the open water, our motor boats were anchored among the "fields" of water lilies and we began the balance of the more than a mile journey by poling the small boats through the flooded swamp, detouring constantly in order to escape floating logs and tangles of underbrush. After more than an hour of this, our guides admitted that they were stumped as to just where the "Cranetown" was. and one of our party, who had visited it twice before, by wading in from the west, frankly admitted that he was "lost." We then began to watch the flight of the big birds over the trees and found them going north and south, so on a vote, it was decided—and luckily—that we go north. Shortly afterwards, the clattering notes of young birds floated to us through the trees and redoubling our efforts we raced our boats through the thick swamp until we pushed their prows through into an open slough, and there before us, in the tree tops, lay the great and tumultuous avian city.

Boats being too slow for the sort of inspection we wanted to make, most of us stepped out into the nearly waist deep water and proceeded, with considerable merriment, over our splashing about, to look the birds over. Every one of the big old cypress trees was crowned with many nests and the honks of the big Ward's (Great Blue) Herons,[1] and the constant clamor of the young Double-crested Cormorants[2] was so loud that we had to shout our conversations to one another. We were presently attracted by a Black-crowned Night Heron,[3] a species not heretofore found nesting in Tennessee, and a short search revealed the fact that a dozen pairs had formed a small nesting colony among the deciduous trees toward one side of "Cranetown." The nests of these herons ranged from 15 to 25 feet above the water, and were very recently built, in ash and in maple trees. Some of the nests were not yet finished, while others held from one to five fresh eggs. The graceful Water Turkey[4] was much in evidence. as it soared about and through the tops of the big cypress trees where it nested alongside the Cormorants, Ward's Herons and American Egrets.[5]

Having brought motion picture and still cameras in hopes of getting an array of pictures, the writer and Messrs. Ganier and Sharp looked about for trees from which good nearby views into adjacent trees might be taken, and were soon in the tops and at work. Messrs. Coffey and Cheek explored the colony from below and reported that previous estimates of a thousand nests seemed to be entirely conservative. Viewed from the tree tops, the sight is most absorbing. Looking about, one could see eggs in the nests, sitting birds and young of all ages. The young Cormorants and Water Turkeys were black, the Egrets were white and the Ward's Herons were bluish grey. Some of the latter, old enough to stand in the nests, when approached too closely, would venture out to the ends of the limbs and, losing their balance, would regain their perch with difficulty or fall and catch on a limb below. The young Egrets would venture out quite as far, but had the knack of keeping their balance nicely. The awkward young Cormorants wisely stuck to their nests. One thing that impressed me very much was the apparent lack of fear of the old birds after they had become accustomed to our presence. For instance, in the tree where I sat for several hours, there were a number of nests, some containing eggs and others young. The parent birds sitting or feeding young would alight on the limbs quite near me and would sit there until I would move, whereupon they would take flight. Some of these nests were in easy reach of my hand as I sat in my perch a hundred feet above the water.

Many of the trees held fifteen or more nests and in some all four species were noted. The different species apparently had no objection to another sort nesting in close proximity. An amusing instance was that of a Ward's Heron which flew in to feed its young. From a nest, a yard away, four young Egrets rushed in for a share of the food; the big Heron hissed them off, whereupon the young Egrets "reversed gears" and scuttled back to their nest. The feeding process of the Herons was noted with a great deal of interest. The old birds would alight on the edge of their nests and after looking their young over, would apparently give a big belch which would immediately cause the young to clamor for food, but it usually took two such efforts to force the food up into the throat. This done, the old bird lowered her head in the midst of the young, and they immediately ran their bills and heads up into her gullet for their meal. When disturbed on the nests shortly after being fed, the young Herons would at times disgorge their food. Perhaps this was intended to be a peace offering. At any rate, it was noted that such food was shortly covered with large weevils which had been hiding inside the nests. Many Bronzed Grackles were about the colony and their duty about the "big city" may have been to keep these weevils from getting too thick. A specimen of each the Water Turkey and Ward's Heron were collected for museum purposes by Earl Henry. Upon the firing of his gun, more than a thousand of the big birds swarmed into the air over the entire nesting area, amid screams and clatter and the harsh calls of the "big blue cranes." In a very few minutes, however, they would all settle down to their affairs, as calm as ever. The Egrets were the most numerous of the nesting birds, and being later with their nesting, perhaps a fourth of their nests still held eggs. Their nests were built of willow twigs, while those of the Ward's Heron were built of cypress. The small Snowy Heron was carefully looked for, but none was seen.

After some difficulty, the climbers were induced to descend from their lofty perches, and all partook of lunch, served in the boats, by Mrs. Coffey and Miss Smith. Two young Red-shouldered Hawks which had just left the nest and were found flying about from log to log, were added to the party and studied as the meal was disposed of. After lunch, Messrs. Calhoun and Turner gave further attention to the Night Herons, while the other members of the party explored other tree tops or listed the small birds about the swamp. A find of interest was a nest of the White-eyed Vireo, containing four eggs of the owner and one of a Cowbird. A list of all the birds noted during the day will be found on another page.

Much more could be written about the habits of the birds we saw at this interesting place, but lack of space forbids. Each of our party, however. expressed the intention of coming again and for a longer stay, if possible.

Nashville, Tenn., June, 1933.

(Scientific names: 1—Ardea herodias wardi; 2—Phalacrocorax auritus auritus; 3—Nycticorax nycticorax hoactli; 4—Anhinga anhinga; 5—Casmerodus albus egretta.)

SPRING BIRD CENSUS FOR TENNESSEE

By MEMBERS OF THE T. O. S.

A year ago we printed the 1932 spring census lists, and, realizing that a great deal of carefully done field work was thus recorded in compact form, it has been decided to repeat this feature for 1933. The introductory remarks printed with the 1932 list hold good for the present one and are therefore not repeated. Where the actual number of birds seen is not shown, they are designated as: (c) Common, (fc) Fairly common, or (p) Present, but number not recorded. Other symbols are explained at the bottom of the list.

	Beersheba Springs, April 10	Hardin Co., April 23	Knoxville, April 30	Johnson City, Apr. 30	Johnson City, May 14	Mt. Pleasant, May 7	Nashville, May 14	Reelfoot Lake, May 29	Memphis, May 14	Memphis, May 7
Horned (?) Grebe	--	--	1	--	--	--	--	--	--	--
Pied-billed Grebe	--	--	--	--	--	--	--	4	1	5
Double-breasted Cormorant	--	--	--	--	--	--	--	200	--	--
Water-turkey	--	--	--	--	--	--	--	50	--	--
Ward's (Great Blue) Heron	--	--	--	--	--	--	--	200	1	1
American Egret	--	--	--	--	--	--	--	400	1	1
Little Blue Heron	--	--	1	--	--	--	--	--	--	--
Green Heron	--	--	3	p	--	--	2	--	9	3
Black-crowned Night Heron	--	--	--	--	--	--	--	20	--	--
American Bittern	--	--	--	--	--	--	--	--	--	1
Ring-necked Duck	--	--	--	--	--	--	--	--	1	--
Lesser Scaup Duck	--	--	4	--	--	--	--	--	2	8
Turkey Vulture	3	f c	2	c	c	--	6	5	3	4
Black Vulture	--	7	--	c	c	6	1	4	1	3
Cooper's Hawk	--	--	1	--	--	--	--	--	--	--
Red-tailed Hawk	2	--	--	p	--	--	--	--	--	--
Red-shouldered Hawk	--	--	--	--	--	--	--	2	1	4
Sharp-shinned Hawk	--	--	1	--	--	--	--	--	--	--
Broad-winged Hawk	--	6	--	--	--	--	1	--	--	--
Bald Eagle	--	--	--	--	--	--	--	1	--	--
Osprey	--	--	1	p	--	--	--	--	--	--
Duck Hawk	1	--	--	--	2	--	--	--	--	--
Sparrow Hawk	--	--	2	p	f c	--	3	--	--	--
Bob-white	11	2	f c	f c	f c	p	f c	10	8	3
King Rail	--	--	--	--	--	--	--	--	2	--
Sora Rail	--	--	--	--	--	--	--	--	1	2
American Coot	--	--	1	--	--	--	--	6	1	--
Semipalmated Plover	--	--	--	--	--	--	--	--	3	--
Killdeer	--	3	--	c	f c	6	c	10	10	--
Spotted Sandpiper	--	--	c	p	c	--	1	--	2	--
Solitary Sandpiper	--	--	2	p	f c	1	--	--	--	--
Greater Yellow-legs	--	--	--	--	--	--	--	--	7	--
Lesser Yellow-legs	--	--	--	--	--	1	--	--	4	1
White-rumped Sandpiper	--	--	--	--	--	--	--	--	20	--
Least Sandpiper	--	--	--	--	6	--	--	--	39	--
Semipalmated Sandpiper	--	--	--	--	--	--	--	--	10	--
Stilt Sandpiper	--	--	--	--	--	--	--	--	5	--
Common (?) Tern	--	--	1	--	--	--	--	--	--	--
Least Tern	--	--	--	--	--	--	--	3	20	--
Black Tern	--	--	--	--	--	--	--	--	1	--
Mourning Dove	3	f c	c	c	c	f c	c	12	6	7
Yellow-billed Cuckoo	--	--	2	--	f c	--	c	6	10	3
Barn Owl	--	--	1	--	--	--	--	--	--	--
Screech Owl	2	1	1	--	--	--	--	--	--	--
Chuck-wills-widow	--	--	--	--	--	--	*3	--	1	*1
Whip-poor-will	2	--	--	p	--	--	--	--	--	--
Nighthawk	--	--	1	p	f c	2	2	--	8	8
Chimney Swift	--	f c	c	p	c	p	c	15	11	500
Ruby-throated Hummngbird	--	1	f c	p	--	--	1	--	3	8
Belted Kingfisher	--	--	2	p	f c	4	1	--	3	3
Flicker	4	1	c	c	c	4	f c	6	9	2
Pileated Woodpecker	6	f c	1	p	--	--	6	5	1	--
Red-bellied Woodpecker	1	2	3	--	--	1	4	6	2	4

Red-headed Woodpecker	4	--	f c	--	2	6	f c	5	8	6
Yellow-belled Sapsucker	2	--	1	--	--	--	--	--	--	--
Hairy Woodpecker	--	1	1	--	--	--	--	2	--	1
Downy Woodpecker	4	4	c	f c	--	--	3	4	2	4
Kingbird	--	3	1	--	f c	4	2	8	6	3
Crested Flycatcher	--	4	f c	f c	f c	2	c	10	14	8
Phoebe	4	--	f c	c	c	--	2	--	--	--
Acadian Flycatcher	--	--	4	c	f c	--	2	8	4	1
Wood Pewee	--	f c	4	--	c	--	c	6	9	8
Tree Swallow	--	--	--	--	--	--	--	--	1	9
Bank Swallow	--	--	2	--	--	--	--	--	--	1
Rough-winged Swallow	--	2	f c	f c	c	2	4	2	10	8
Barn Swallow	--	--	--	--	1	f c	90	--	2	8
Purple Martin	--	f c	f c	--	f c	f c	f c	40	132	2
Blue Jay	8	c	c	c	c	4	c	3	15	13
Crow	5	f c	c	c	c	f c	f c	2	6	1
Carolina Chickadee	6	f c	f c	c	f c	4	8	3	2	2
Tufted Titmouse	9	f c	c	c	c	--	f c	2	6	7
White-breasted Nuthatch	2	f c	--	p	--	--	3	2	--	--
Bewick's Wren	3	--	1	p	--	f c	c	--	--	--
Carolina Wren	8	f c	c	c	c	p	c	12	12	9
Mockingbird	1	2	f c	c	c	f c	c	--	11	10
Catbird	--	1	f c	c	c	6	f c	--	1	1
Brown Thrasher	3	2	f c	c	c	4	c	--	4	2
Robin	12	3	c	c	c	f c	c	10	1	1
Wood Thrush	1	4	c	c	c	4	c	--	17	12
Hermit Thrush	--	1	--	--	--	--	--	--	--	--
Olive-backed Thrush	--	--	1	--	--	--	3	--	--	--
Veery	--	--	1	--	--	--	--	--	--	--
Bluebird	21	f c	f c	c	c	--	f c	--	1	--
Blue-gray Gnatcatcher	--	f c	f c	c	--	2	2	5	5	5
Golden-crowned Kinglet	6	--	--	--	--	--	--	--	--	--
Ruby-crowned Kinglet	--	1	--	p	--	--	--	--	--	--
Cedar Waxwing	--	--	3	--	f c	10	9	6	30	5
Loggerhead Shrike	--	--	--	--	--	--	--	--	3	2
Starling	--	--	f c	c	c	f c	6	--	--	--
White-eyed Vireo	--	f c	c	c	c	--	c	10	10	7
Yellow-throated Vireo	2	c	3	--	--	--	f c	2	1	3
Red-eyed Vireo	--	c	f c	c	c	2	c	25	12	13
Warbling Vireo	--	--	--	--	f c	1	2	4	5	--
Black and White Warbler	8	c	2	p	c	--	3	3	1	2
Prothonotary Warbler	--	--	2	p	--	--	1	20	10	8
Worm-eating Warbler	--	--	--	p	--	--	--	--	--	--
Blue-winged Warbler	--	2	1	--	--	--	6	--	--	--
Tennessee Warbler	--	--	--	--	--	--	--	--	--	5
Parula Warbler	1	1	--	c	c	--	--	3	2	2
Yellow Warbler	--	2	3	c	c	--	8	--	--	3
Magnolia Warbler	--	--	1	--	--	--	2	--	--	2
Cape May Warbler	--	--	--	--	1	--	--	--	--	--
Black-throated Blue Warbler	--	--	2	--	1	--	--	--	--	--
Myrtle Warbler	5	3	1	--	--	--	--	--	--	--
Black-throated Green Warbler	7	2	--	p	--	--	--	--	--	--
Cerulean Warbler	--	--	1	--	--	--	--	--	--	--
Blackburnian Warbler	--	--	1	--	--	--	1	--	--	--
Sycamore Warbler	1	1	--	--	--	--	4	6	2	1
Chestnut-sided Warbler	--	--	f c	--	f c	--	1	--	--	1
Bay-breasted Warbler	--	--	--	--	--	--	--	--	--	*1
Black-poll Warbler	--	--	2	p	--	p	20	--	--	1
Pine Warbler	12	c	--	--	--	--	--	--	--	--
Prairie Warbler	2	f c	--	--	4	--	c	--	--	--
Palm Warbler	2	8	--	--	--	1	2	--	--	--
Oven-bird	7	--	f c	c	c	--	1	--	--	1
Louisiana Water-thrush	5	1	f c	f c	f c	--	f c	3	1	2
Kentucky Warbler	--	f c	f c	f c	c	--	3	--	8	6
Maryland Yellow-throat	--	2	f c	f c	c	2	c	10	25	30
Yellow-breasted Chat	2	--	3	c	f c	--	c	10	13	12
Hooded Warbler	5	f c	1	--	--	--	--	1	5	7
Redstart	--	--	4	p	c	--	1	4	16	15
Bobolink	--	--	--	6	--	20	8	--	54	40
Meadowlark	--	--	f c	c	c	c	c	15	40	25
Red-wing Blackbird	--	--	f c	c	c	f c	2	30	48	30
Orchard Oriole	--	1	1	p	c	f c	f c	8	10	10
Baltimore Oriole	--	--	--	p	f c	--	f c	2	5	2

Purple Grackle	--	--	f c	c	c	--	--	--	--	--
Bronzed Grackle	--	--	--	--	--	c	c	20	10	9
Cowbird	--	--	1	p	f c	--	2	1	2	5
Scarlet Tanager	--	4	f c	p	f c	--	4	--	--	2
Summer Tanager	--	c	c	p	f c	2	c	8	9	7
Cardinal	6	f c	c	c	c	4	c	12	30	21
Rose-breasted Grosbeak	--	--	--	p	8	--	--	--	--	--
Indigo Bunting	--	8	3	p	c	--	c	6	37	22
Painted Bunting	--	--	--	--	--	--	--	--	x1	--
Dickissel	--	--	--	--	--	--	2	8	--	54
Goldfinch	2	f c	f c	c	c	--	c	--	70	20
Towhee	5	4	f c	c	f c	2	c	--	--	1
Savannah Sparrow	--	--	f c	--	f c	10	--	--	9	1
Grasshopper Sparrow	--	--	f c	--	f c	c	8	--	--	--
Vesper Sparrow	--	--	--	p	f c	--	--	--	--	--
Lark Sparrow	--	--	--	--	--	--	*3	--	--	--
Bachman's Sparrow	1	1	--	--	--	--	2	--	--	--
Slate Colored Junco	8	--	1	--	--	--	--	--	2	--
Clay-colored Sparrow	--	--	--	1	--	--	--	--	--	--
Chipping Sparrow	6	f c	f c	c	c	--	c	5	--	--
Field Sparrow	5	f c	f c	c	c	--	c	--	2	1
White-throated Sparrow	12	c	c	p	--	6	4	--	--	7
Swamp Sparrow	--	--	2	--	--	--	--	--	--	--
Song Sparrow	--	--	f c	c	c	--	--	--	--	--

* Seen previous day. x Seen May 17.

BEERSHEBA SPRINGS: April 16, Beersheba Springs (Grundy County), and escarpment for five miles south, above Collins River. Messrs. Mayfield, Ganier, Yarbrough and Woodring.

HARDIN COUNTY: April 23, Tennessee State line to Pickwick and Red Sulphur Springs and return. Mr. and Mrs. Coffey, Miss Smith, Dr. Counce, Messrs. Warriner, Wright, Allen, Mayfield and Ganier.

KNOXVILLE: April 30, Ijam's Place and vicinity. Island Home Bird Reservation. East Tennessee Ornithological Society. List furnished by Ijams.

JOHNSON CITY: April 30, Forks of Watauga and Holston Rivers. Gray's on Holston and Cox's Lake. Bruce P. Tyler and Robert B. Lyle.

JOHNSON CITY: May 14, Head of Spivy, Chucky River, Boone's Creek. Bruce P. Tyler and Robert B. Lyle.

MOUNT PLEASANT: May 7, Dan Gray's farm and vicinity. Two miles north of Mt. Pleasant. Messrs. Ganier, Monk and Gray.

NASHVILLE: May 14, Cub Creek School, twelve miles west of Nashville, on River Road. Valley above and bottoms to Cumberland River. Members of the T. O. S. Annual Spring Field Day.

REELFOOT LAKE: "Cranetown" on Reelfoot Lake, also en route by motor boat from Samburg, also Samburg. Messrs. Vaughn, Cheek, Sharp, Calhoun, Ganier, Mr. and Mrs. Coffey, Henry and Turner. May 29.

MEMPHIS: Lakeview, Miss., north on Y. & M. V. R. R. into Tennessee, back to barrow pit, then three miles north along pits. From Mud Lake to Mississippi River. Memphis Chapter, T. O. S. May 14.

MEMPHIS: Lakeview, Miss., barrow pits, then north along Y. & M. V. R. R. into Tennessee. May 7. Lists furnished by Coffey.

For other notes on the above lists, see items in The Round Table on pages 19 to 24.

A ROOST OF THE WILD PIGEON

By W. R. MANLOVE

I was an eye-witness to the last flight of wild pigeons that occurred in Tennessee. As nearly as I can recall, it was in the fall of 1870. I was a boy on my father's farm in the White Creek valley about six miles north of Nashville.

For a fortnight, flocks of five or six birds, pioneers of the great horde to follow, had been seen flying about, searching the feeding frounds. Then came the great flight.

It was a clear, crisp, autumn day, with just a faint haze, remnant of Indian summer, dimming the distant hills. The leaves had turned brown and yellow, and, for the most part, had fallen from the trees. From hickory, beech and chestnut trees nuts were dropping.

The dreamy silence of early morning was broken by a rushing sound as a great column of wild pigeons came flying swiftly up the valley. This column was so wide that it reached almost from range to range of the side hills, a distance of a mile, and so dense as to darken the sun, so that we had to light lamps in the house.

As the birds passed directly overhead, the swishing of their wings could be distinctly heard amid the roar of their flight, which was like that of a rushing, mighty wind. Hour after hour they passed, and it was nearly noon when the last swept below the horizon, leaving us gazing after them in astonishment.

Soon after this they established a general camp, or "pigeon roost," on Paradise Ridge, near the head of the valley. Here every morning the great horde separated into several divisions and flew to as many parts of their feeding ground.

At that time much of the valley and adjacent hills was covered with groves of beech. The small, rich nuts of this tree seemed to be their favorite food. In fact, though I have seen scores of wild pigeons dressed, I recall seeing no other food in their crops except beech nuts and acorns of the chinquapin oak.

When a flock of pigeons approached a grove the column would wheel and the first birds would alight on the ground under the trees in perfect alignment and begin to feed. The birds following would hover a moment on the wing and then drop in front of the first rank. When the first had advanced to where the second rank had begun feeding, it would again take wing and drop in front, as before. This constant movement gave to the flock the appearance of a great cylinder of fluttering birds, hundreds of yards long, rolling through the woods with machine-like precision, and at about the speed a man would walk. Not a nut could be found after they had thus passed over ground that before had been thickly strewn with them.

When they had passed through the grove, they would rise with a rush and a roar of wings, wheel into column again and fly to sme other part of the neighborhood in search of food.

During their stay in the vicinity, every gun in the countryside was brought into action, and men and boys would vie with each other to see who could slay the greatest number of these innocent creatures. This constant firing was not unlike an infantry skirmish all day long as the flocks passed to and fro over the hunters.

It was pathetic to see the efforts of the comrades of a wounded pigeon to support him in his flight. One after another would dart under the stricken one as he began to sink, as if to buoy him with their wings. They would continue these efforts long after he had sunk below the general line of flight, and not until all hope was lost would they reluctantly leave him and rejoin the flock.

The wind of the flight and the aid of his comrades would frequently carry a bird hundreds of yards beyond his slayer after he had received a mortal wound. Experienced hunters never fired into an approaching flock, as the plump breasts and thick feathers made such a shot of little effect. They would wait until the birds had passed, when a shot from the rear would drive under the feathers and thus be more deadly.

The worst slaughter, however, was at the roost, which comprised several acres of forest. There the birds gathered at night in such countless numbers that they broke branches and sometimes small trees by their weight. There the slayers went and killed without mercy, so that the poor pigeons got little rest, day or night. One hunter stated that he picked up 150 birds, after firing both barrels of a heavily-loaded gun into a tree at the roost. This destruction continued, night after night, during their stay.

After two or three weeks, when the forage had been exhausted, the survivors of the great horde left the country as suddenly as they had come.

I am convinced that few men have ever seen a wild pigeon in all its beauty, as the birds were so shy that one could not approach them closely in the daylight. Once only I saw a living bird so closely as to be able to note its exquisite beauty. I gazed with wonder on the spirit-like creature, to my boyhood mind the emplem of innocence. Aside from the perfect symmetry of its dainty form, I saw that in life it had an eye like a brilliant topaz, softened by a dark iris, and every feather glowed with color, so that the creature, from shapely head to sweeping tail, was a living gem. It was not one color, but all colors, as if each feather were a prism, and the curve of each feather tip a tiny rainbow reflecting the rays of the morning sun.

Nashville, Tenn.

* * *

THE ROUND TABLE

THE SEASON AT MEMPHIS: The Spring Field Day was postponed from May 7 to the 14th, although several cars were driven through a terrific storm to Lakeview, and two carloads remained for a trip after the storm ceased. The weather was also threatening on the 14th, and the attendance was reduced to 21. In addition the party was not able to search the wooded bottoms in search of Mourning Warblers and Philadelphia Vireos, last year's high spots, but had to remain on the Y. & M. V. R. R. tracks, due to the high waters of the Mississippi River and tributary creeks. A flock of six White-rumped Sandpipers were the only shore birds seen at the barrow pit (Lakeview, Miss.), in contrast with quite a variety noted last year. A heavy growth of vegetation in the pit, before it filled up to last year's level, left no attractive muddy shores. The flood waters embraced in a mighty whole several small ponds, so that no very good places were left to find shore-birds. Instead of arriving later this year, most of this group apparently passed us by. After the field trip was officially over on the 14th, we drove around and back to the levee near Mud Lake and followed it south about three miles to the river. These "bar-pits" yielded better shore-bird results as shown in the list for May 14. Chief in interest among the species noted and new to our list for the Memphis area, was the Stilt Sandpiper, *Micropalma himantopus*, five of which were noted from as close as 12 feet. They were larger than the White-rumped; about the size of the Solitary Sandpiper, and darker underneath than the White-rumped, Yellowlegs, or Solitary. The white on the tail was like that of the Yellowlegs, except that whereas the black bars on the end of the latter's tail are not prominent, those on the Stilt Sandpiper were prominent and more numerous. The legs were dark greenish. The place at which they were seen was about three miles south of Tennessee state line.

The Lakeview barrow pit finally regained last year's water level, but weeds and other growth had been burned off during the winter. Despite this, however, three Pied-billed Grebe nests were found on April 16th, with 6, 4 and 7 eggs, respectively. An eighth egg was not added to the last set, and slightly over a week later the eggs were missing. In all, seven nests were noted this season, the seventh probably being a second attempt. The first young were noted on May 7th, and were probably hatched the day before. This particular nest was practically in the open, no effective cover. All the others could easily be seen after approaching to within 20 feet. On May 30, a flock of six young Grebes, evidently those hatched on the 6th, were noted and also a string of six others about ten days old in the wake of an adult. Two and possibly three adults were noted on our visits.

Soras, King Rails, and Wilson's Snipe were scarce this spring at this location. A Least Bittern was seen May 2 and a Purple Gallinule May 30. The Glossy Ibis recorded last spring was not noted this year—the crop of young leopard frogs was small and about three weeks late (May 30). An Osprey was seen at the lake here April 25th and 30th. Two Yellow-crowned Night Herons were seen flying over on April 22.

The last of our scheduled meetings was held on June 5, at which time the following officers were elected for the Memphis chapter: Miss Mary Davant, president; Earl Henry, vice-president, and Miss Jacquelin Hall, secretary.—Ben B. Coffey, Memphis.

NOTES FROM CORINTH AND SOUTHWEST TENNESSEE: On March 19, I found 5 Brown-headed Nuthatches in a patch of pines near Waukomis Lake, a small body of water 9 miles southeast of town, and about 8 miles south of the Tennessee state line. On May 8, at the same location, a small flock was observed. I am sure that this flock included some of this year's hatch, since there appeared to be 8 or 10 of them. They were ranging in a small pine woods lot near a farm house. Other small patches of pine were in the neighborhood, but there were no extensive areas of it. These Nuthatches were noisy and full of pep. In between the above dates, two searches made on the Tennessee side of the line were unsuccessful. The first, on March 26, by Mr. and Mrs. Ben B. Coffey and Henry Turner of Memphis, in the pines along the Savannah-Florence road, and later, after joining Elgin Wright and myself, near Counce and Red Sulphur Springs. On April 23, this same group, augmented by Messrs. Mayfield and Ganier of Nashville, searched again for them in the region about Red Sulphur Springs. These Nuthatches have not as yet been recorded in Tennessee.

On April 20, I noted the Scarlet Tanager and Rose-breasted Grosbeak; Redstarts and Hooded Warblers appeared to be more common than usual. On May 8 I saw a flock of about 100 Bobolink in a recently plowed meadow. At that date, Mr. Wright reported that Starlings were prospecting for a nesting site in the gable of his house. There was a small hole at the top of the roof into which they were going in and out for several days. They were about the yard for two weeks at least, after which I did not see them. They may have nested, but I cannot be at all sure. A pair of Prairie Horned Larks were reported by Mr. Coffey on March 26, and on April 23, west of Wayne's School, in Tennessee, 7 miles south of Shiloh Military Park. The latter date is good evidence of their nesting nearby.—Benj. R. Warriner, Corinth, Miss.

NOTES FROM HARDIN COUNTY: On April 22, the day was spent in searching the pine woods areas in the vicinity of Red Sulphur Springs, in an effort to record the Brown-headed Nuthatch and Red-cockaded Woodpecker, which species had been recorded many years ago, a few miles south, in Tishomingo County, Mississippi (*Auk*, 1907, pp. 12-25). Some very extensive tracts of nearly pure pine growth were searched for these species, which are partial to these trees, but, as on the occasion of two previous trips, we could not find the birds. We were so fortunate as to observe Broad-winged Hawks in three places and they were soaring about with noisy cries as though much enthused over their approaching nesting activities. After searching for some time for a nest, one of our party saw one of the hawks fly to a partly finished nest about 30 feet up in a hardwood tree in thick woods. Pine Warblers were noted to be abundant in the pine woods and were singing continually. Blue Jays are unusually abundant in this section, particularly in the "flats" covered by black-jack oaks. Sixteen species of warblers were listed, although it was a bit early for this group of birds. A Great Blue Heron was observed near the Springs, flying toward the Tennessee River, a mile away. On our drive down from Nashville we noted many migrating shorebirds along the way, at small ponds, including Solitary Sandpiper (18), Spotted Sandpiper (1), Lesser Yellowlegs (3) and the ever-present Kildeer.—George R. Mayfield, Nashville.

UNUSUAL WATER BIRDS: I have a small collection, chiefly of water birds, which I have mounted from time to time, some of which may be worth placing on record. A Ring-billed Gull, a Herring Gull, and an Old Squaw Duck (male) were collected on Laurel Lake, three miles southwest of Spring Hill, late in the fall of 1932. A three-acre marsh a short distance west of Thompson Station attracted the following migrating water birds, which I have: Black-crowned Night Heron, American Bittern (2), Sora Rail, Greater and Lesser Yellowlegs, Pectoral Sandpiper (2) and Least Sandpiper. Messrs. Ganier and Monk, who called by my place on May 7, were shown these specimens.—W. H. Sedberry, Thompson's Station.

SPARROW NOTES: The Lincoln Sparrow (*Melospiza Lincolnii*) is considered a rare transient in Middle Tennessee, but bird-banding may prove this species to be more abundant than past records indicate, due to the difficulty of identifying it in the field. Last spring, three individuals were banded and this spring, five on the following dates: May 3rd, 1933, two birds; May 12th, two birds; May 19th, one bird. One of these Sparrows was observed on May 14th, the T. O. S. Field Day, and watched at close range by our group.

In 1932, from February 1st to May 14th, twenty-two White-crowned Sparrows (*zonatrichia leucophrys*) were banded at Blossomdell, my home station. From Oct. 15th, 1932, to May 3rd, 1933, forty-two more were trapped and six individuals banded the previous season were retrapped, a return record of 27%. At the two substations operated, also suburban, not even a sight record of a White-crowned Sparrow was made, though the White-throated was abundant at both the Belle Meade and Green Hills substations. —Mrs. F. C. Lasky, Nashville.

SCREECH OWLS have not been disturbed as they came to the garden in the past, and in the day book, under dates of March 28, 1933, are the following notations: "Seven p. m., Screech Owls calling soft little trill, very close to house." On April 5, during a wind storm, a box placed in a dead tree for Flickers blew down and was examined. As it was emptied, out poured the sawdust and quantities of fresh feathers, red, blue and brown, several portions of bird bills, a claw and bits of crayfish shell and plenty of owl pellets. Identification of the bills revealed the fact that the owl had used the box as a cache and in it had consumed portions of at least two Bluebirds, two Cardinals and a Robin. An abundance of food at the banding station attracts large numbers of birds, which in March of this year experienced difficulty in finding cover for roosting after the disastrous Spring freeze denuded the privet and honeysuckle of leaves. The sleeping birds were doubtless easy prey for the owl in his search for food. Now the Screech Owl is persona non grata at the banding station.—Mrs. F. C. Laskey, Nashville.

SPRING NOTES, 1933: Starlings seem to have increased considerably in Middle Tennessee this spring. They are to be found nesting all over Nashville and in the country around, using chiefly holes in phone poles made by woodpeckers. On April 23, on a trip south into Alabama, they were noted regularly to Mt. Pleasant and even further south, at Lawrenceburg and at Boston. In Alabama, from The Shoals to Iuka, Miss., none were observed. On May 27, on the drive to Reelfoot Lake, I kept a close lookout for Starlings, but none were seen west of the Tennessee River. Mr. Coffey reported none on this date in his drive from Memphis to Reelfoot Lake. As yet, we have no record of its breeding in West Tennessee. Three pairs of Shrikes have been found nesting in and near Nashville this spring: (a) a pair on Fort Negley, in the city, (b) a nest with 5 eggs near Easton on May 6, and a nest near Donelson on May 30, with 5 fresh eggs. In a tree near the latter site, young Shrikes but a few days out of the nest were being tended by the parents. On May 6, with Jack Calhoun, a search was made of two small patches of pine woods near where Brush Creek flows into Harpeth. Here a nest of the Coopers Hawk was found in a remodeled nest which contained 4 slightly incubated eggs. It was the first nest of this species we have ever found in a pine. A short distance away, an Osprey was observed along the creek, apparently a transient. On May 7, H. C. Monk and the writer spent the morning with D. R. Gray near his home at Mt. Pleasant searching, without success, for Upland Plovers. Mr. Gray sees them in April and in September nearly every year. On May 21, we visited Laurel Lake, 3 miles west of Spring Hill, where Mr. Sedberry reported having seen what he believed to be a King Rail with young in 1932. We were not so lucky and found very little marsh grass about the lake. However, we noted a pair of Spotted Sandpipers and a Semipalmated Sandpiper, also a Blue-winged Teal unable to fly well. Under a concrete bridge carrying the main highway near Spring Hill, a colony of Barn Swallows had built and were building nests. These were the first nests we recall, not constructed in buildings. The large colony of Barn Swallows, located in cowsheds near Bellevue (see *Wilson Bulletin*, 1922, p. 184), was visited on May 14th, and found to have increased to 40 or 50 occupied nests. In some there were found fresh eggs and from others the young were leaving. On May 30, nine Cowbirds, mostly males, were seen together—usually flocks are broken up by this date. On June 4, I had the pleasure of finding my first nest of the Lark Sparrow; it contained three nearly fresh eggs. This was from the location near Gladeville described in *The Migrant* for June, 1932. Two or three pairs of birds had been seen here on May 13, but on the June date neither G. R. Mayfield nor myself heard any nor saw one until the bird flushed from a few feet ahead of me. The nest was built on the ground between two knee-high weeds in an old field quite bare except for a sparse growth of these weeds. It was lined with hair and was quite like the empty one I found last year. On June 6, I returned to photograph the nest and found that the field. with the nest, had been plowed up. On June 4, Vernon Sharp found several of these birds at the location nearer town where the empty nest was found last year.—A. F. Ganier, Nashville.

A WOODCOCK NEST AT KNOXVILLE: On April 27, 1931, a nest of this rare and unusual bird was reported to me from a point near the Southern Railway yards and not far from the city limits. On that date it held a set of four apparently fresh eggs. Some days before, it had been discovered by some of the railway workers when they flushed the sitting bird from the nest. On returning the following day, one of them attempted to throw his hat over the bird, which caused her to desert the nest. On April 30, I visited the nest for the first time and found no bird upon it, nor could she be found there on May 1 and 2. On the latter date I began to search the premises for the birds themselves, and had the good luck to flush one of them from a new nest containing four eggs, which seemed fresh. Like the first, it was rather exposed and placed on a small rise or knoll in the midst of a damp swampy piece of waste land. The bird flushed at ten feet and flew quite a distance away. Two, and again three days later, I was in the vicinity and on flushing the sitting bird, it flew only about ten or fifteen feet away and then, with wings down, began to strut like a turkey cock. On May 8, a friend wanted to see this performance, but on that day the bird flew quite a distance away. It is possible that the bird which strutted on May 1 and 2 was the male. On May 19, I noted that the eggs were still in the nest, and another observer reported them there on the following day. On the 22nd, I found that the nest was empty and gave evidence of having been so at least overnight. I therefore judged that hatching had taken place on the 21st, indicating an incubation period of not less than 20 days. (Mr. F. L. Burns gives the incubation period of this species as 20-21 days.) In 1932, a nest was reported at Fountain City, about five miles north of Knoxville.—John Bamberg, Knoxville.

CLAY-COLORED SPARROW AT JOHNSON CITY: On April 30, after my return from an all-day bird trip, I thought I would see what I might find on the grounds about my hme, and shortly was greeted by the song of a new bird. It seemed to be in the next yard, yet clear and distinct—zzz-zzz-zzz-zzz, in monotone and harsh. Before I knew it I flushed the bird and immediately brought my field glasses into play. It was very, very like an immature Chipping Sparrow, but the notes were quite different. In addition to the song noted above there was an indistinct low and sweet warble. For three days this little visitor accepted my hospitality and was studied at leisure. Quite friendly, though not so much as the Chippy and always feeding in my garden, sometimes perched on the raspberry bushes, its song came zzz-zzz-zzz-, and then its little throat would bulge, followed by the sweet, low warble.

Our unusual visitor was none other than *Spizclla pallida*, the Clay-colored Sparrow, my first observance of this bird in Tennessee, and a new bird for the State list. Its markings and colors were checked against the color plate in Dr. Roberts' *Birds of Minnesota*, and a few weeks later, when in Washington, Dr. Oberholser showed me specimens of these birds along with similar sparrows, and, after discussion with him, I was fully confirmed in my original identification. This Western species is presumably only a casual visitor in the Eastern United States, the 1931 A. O. U. check list giving only two records: one for Massachusetts and one for South Carolina.—Bruce P. Tyler, Johnson City, Tenn.

FIELD DAYS AT KNOXVILLE: On April 30, the annual spring bird census was made at the Island Home Bird Reservation and resulted in 100 species being recorded there and on the Tennessee River. These are listed on page 15. Practically all Knoxville members were in attendance. The third Sunday in June marks an annual hike on top of the Smokies, so this year, on the 18th, our group followed the State line trail from New-found Gap to Mt. Kephart and "The Jump-off" beyond. At the latter point we were lucky enough to hear the Duck Hawk; last year their young were heard in the cliff below. An excellent list of birds was seen and heard during the day.—H. P. Ijams, Knoxville.

T. O. S. SPRING FIELD DAY AT NASHVILLE: This annual event was held on May 14, at Cub Creek School House, on the River Road, 15 miles southwest of Nashville. About 60 people were in attendance, the majority of whom were members. Listing birds of the adjacent foothills of the Highland Rim was indulged in during the morning, and in the afternoon the Cumberland River bottoms were searched. Two heavy showers curtailed field work to some extent, but 85 species of birds were listed during the day. (See list on page 15.) Transient species were found to have nearly all passed northward. Lunch was prepared as usual, in the splendid beech grove, following which there was the election of officers and further excursions afield. —Geo. B. Woodring.

OFFICERS FOR THE YEAR BEGINNING JULY, 1933: The annual election resulted in choosing the following to serve: President, Ben B. Coffey, Jr., Memphis; Vice-presidents, Geo. R. Mayfield, Nashville, and Brockway Crouch, Knoxville; Curator, Albert F. Ganier, Nashville; Editor-Treasurer, Geo. B. Woodring, Nashville; Secretary, Mrs. F. C. Laskey, Nashville.

LATE NESTINGS: Information is desired on late summer nestings of all of our common birds since comparatively little is known about the extent to which second and third broods are raised, the number of eggs laid and the success which results in these late broods. Data sent to the Curator will be compiled and presented later when a sufficient amount has been gathered.

Pleasant echoes of the State Bird Contest, conducted by the T. O. S., continue to be heard on every hand. Nearly 73,000 votes poured in, from every section of the State, and when the polls closed on April 11, the 15 candidates had received the following votes: Mockingbird, 15,553; Robin, 15,073; Cardinal, 13,969; Bob-white, 10,468; Bluebird, 9,135; Woodthrush, 2,670; Bewicks Wren, 1,534; Meadow Lark, 1,091; Pileated Woodpecker, 826; Chickadee, 703; Brown Thrasher, 576; Towhee, 518; Sparrow Hawk, 345; Field Sparrow, 240; Flicker, 230; Since each of the species received uniform publicity, the results give a pretty fair idea of how the general public regards their qualities. The majority of the votes were cast by school children, but a considerable percentage was cast by grown-ups as well. A very marked general interest has been aroused in birds as a result of the campaign. A Senate resolution was put through the legislature making the selection of the Mockingbird legal and authoritative.

Keep every number of *The Migrant*, and if you lack any of the back numbers, order them without delay, for of some numbers there are only a few on hand. We expect to be able to reprint volume one, uniform with our present style. At the conclusion of volume five a complete index, by species, will be printed, and when the five volumes are then bound together they will make an invaluable reference book on the birds of Tennessee.

Some of our members have not as yet ordered their copies of Tennessee Avifaunas, Nos. 1 and 2, reviewed in our last issue. The Distributional List of the Birds of Tennessee, particularly, should be in the library of each of our members.

For the birds about your homes, remember that this is the season when they are often dependent on you for water. Keep your drinking fountains and water pans well supplied.

The past spring has witnessed perhaps the most active field work on the part of our members in some years.

The account of the Passenger Pigeon roost, printed in this number, is taken from A. C. Webb's "Our Bird Book," published at Nashville in 1917.

* * *

The Migrant is sent to all members not in arrears for dues. Active membership is one dollar per year; associate membership is fifty cents. Subscription to non-members, sixty cents. All articles, correspondence and dues should be sent to the Editor-Treasurer, G. B. Woodring, 1414 Stratton Ave., Nashville.

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WINTER BIRDS OF NORTHEASTERN TENNESSEE

By BRUCE P. TYLER and ROBERT B. LYLE.

FOREWORD. Without much doubt less attention has been devoted to birds during the winter than in any other season. One need not seek far for the reasons, since not only are climatic conditions in many localities less attractive to the bird student, but the activities of birds are more restricted, and many of the birds themselves are in garb that makes them more difficult to identify than in the spring. All this results in a greatly decreased return for the field work undertaken.

It is now recognized that the winter residence of a bird is second in importance only to its summer home, since the ability of a species to subsist in good physical condition during the winter is a necessary prerequisite to a successful breeding season.

We know all too little concerning the winter distribution of our birds, and much further investigation is, therefore, needed. Any real contribution to this end possesses scientific value. Particularly is this the case regarding the winter distribution of birds in important areas such as the State of Tennessee.

HARRY C. OBERHOLSER.

In this article the authors have tried to present a fairly good idea of the winter birds of northeastern Tennessee, embracing those known to be resident or visitors during the months of December, January and February. It is not claimed that the list is complete, but that it is accurate as far as it goes and represents the more common to comparatively rare winter birds.

Our observations have been made within a radius of thirty miles of Johnson City, which has an elevation of 1,700 feet, S. L. datum. This city lies in the valley of the Watauga River, nestling against Buffalo Mountain on the southeast, and about five hundred feet above and, say, five miles southeast of the river. To the north and west stretches the valley, mountains rising again at Clinch Mountain to the mean elevation of three thousand feet at a distance of approximately twenty-five miles from Johnson City as the crow flies. The principal mountains to the southeast are Holston, Iron, Roan and Big Bald. The latter two are on the Tennessee-North Caroline State line, approximately twenty miles distant from Johnson City, and having a maximum elevation of 6,313 on Roan Mountain. More adjacent to Johnson City are Buffalo, Cherokee and Unaka Mountains. The valley is watered by the Watauga and Holston Rivers, and approached on the south by the Nolichucky River. The Watauga and Holston Rivers are separated by a ridge of minor importance. In this setting the data for this paper have been secured.

The greatest weakness of the list is probably in the water birds, as the terrain traversed on our bird walks has, most commonly, been uplands, borders of small streams and forests, with a minimum of time spent along the larger streams. The ducks, for instance, are almost missing from the list.

At best, the ducks are rare in the mountain waters, yet we feel sure that a larger list can be gleaned after more observations have been made along the rivers.

For the benefit of the less experienced bird enthusiasts, it may be stated that the winter plumage of some birds may prove confusing. The Phoebe in winter garb is darker, with more olive on sides and back. The very early migrants of this species which may arrive during February are prone to sojourn in the woods, but the birds that winter here prefer to dwell near their nesting places along the streams where bridges and overhanging cliffs offer protection. The Swamp Sparrow may have so much black in the crown as almost to obliterate the chestnut coloring. The Myrtle Warbler dons a less conspicuous coat. The beauteous Goldfinch's brown winter overcoat bears scant similiarity to its lemon yellow plumage of the summer season. The winter birds present problems all their own.

While many of the species are listed as "permanent residents," it may be that our breeding birds of these species really go south in winter and are replaced by others of the same species from the North. However, we are not here concerned with migration, but with the occurrence of species. The list follows below:

Common Loon *(Gavia immer immer)*

Rare winter visitor; may be observed on larger ponds and river eddies.

Pied-billed Grebe *(Podilymbus podiceps podiceps)*

Occasional winter and early spring visitor.

Mallard Duck *(Anas platyrhynchos platyrhynchos)*

May be observed on the rivers occasionally. Even when the rivers are frozen they appear on open patches where inflowing spring water prevents freezing.

Bufflehead Duck *(Charitonetta albeola)*

Winter and early spring visitor. Rare.

Turkey Vulture *(Cathartes aura septentrionalis)*

Common; found most often along the high river bluffs. Permanent resident.

Black Vulture *(Coragyps atratus atratus)*

Common. Associates with the Turkey Vulture. Permanent resident.

Sharp-shined Hawk *(Accipiter velox velox)*

Rare. Seen mostly over open fields and cut-over lands. Permanent resident.

Cooper's Hawk *(Accipiter cooperi)*

Common, though not often seen. Permanent resident..

Eastern Red-tailed Hawk *(Buteo borealis borealis)*

Fairly common. The most interesting of the larger hawks. Permanent resident.

Golden Eagle *(Aquila chrysaetos canadensis)*

Permannt resident in the remote fastnesses of the mountains. Stockmen along the northwest margin of the Clinch Valley and also in the North Carolina mountains, report that these eagles often kill very young lambs and that on occasions it has become necessary to have armed watchers to keep them away at lambing time. It is not common, but can usually be observed in the higher mountains.

Duck Hawk *(Falco peregrinus anatum)*

We have noted these about their eyrie early in February. It is probably a permanent resident. Three pairs are known to nest near Johnson City.

Eastern Sparrow Hawk *(Falco sparverius sparverius)*

Most common of the hawks. Partial to open fields. Permanent resident.

Eastern Ruffed Grouse *(Bonasa umbellus umbellus)*
Fairly common in the mountain forests. Permanent resident.

Eastern Bob-White *(Colinus virginianus virginianus)*
Common in cultivated fields and adjoining thickets. Permanent resident.

Eastern Turkey *(Meleagris gallopavo silvestris)*
Still found in remote mountain sections. Permanent resident.

Killdeer *(Oxyechus vociferus vociferus)*
Common in open fields, lowlands and around ponds. Permanent resident.

Eastern Mourning Dove *(Zenaidura macroura carolinensis)*
Common in open cultivated fields. Permanent resident.

Barn Owl *(Tyto alba pratincola)*
Rare. Some, at least, remain in winter.

Eastern Screech Owl *(Otus asio naevius)*
Common. Partial to big trees of the city. Our only urban owl. Permanent resident.

Great Horned Owl *(Bubo virginianus virginianus)*
Common in dense woods and mountains. Permanent resident.

Eastern Belted Kingfisher *(Megaceryle alcyon alcyon)*
Resident until severe weather freezes the rivers when it leaves, not to return until the following spring.

Northern Flicker *(Colaptes auratus luteus)*
Common. While principally a bird of the woods, the flicker often graces our city lawns and dooryards. Permanent resident.

Southern Pileated Woodpecker *(Ceophloeus pileatus pileatus)*
Fairly common in remote forests, increasing in numbers. Permanent resident.

Red-bellied Woodpecker *(Centurus carolinus)*
Fairly common. Permanent resident.

Yellow-bellied Sapsucker *(Sphyrapicus varius varius)*
Rare winter visitor. Probably permanent resident on higher mountains.

Eastern Hairy Woodpecker *(Dryobates villosus villosus)*
Rare. Favors higher altitudes. Permanent resdent.

Northern Downy Woodpecker *(Dryobates pubescens medianus)*
Most common of its family. Permanent resident.

Eastern Phoebe *(Sayornis phoebe)*
Winters here occasionally, but is more common during the spring and summer months. Northern Tennessee is very near its northern wintering limit.

Prairie Horned Lark *(Otocoris alpestris praticola)*
Common. Occurring in open pastures in large flocks of twenty or more. Winter resident.

Northern Blue Jay *(Cyanocitta cristata cristata)*
Common in woodlands, occasionally visiting the shade trees and shrubbery in cities or about farm houses. "Policeman" of the woods. Permanent resident.

Northern Raven *(Corvus corax principalis)*
Rare, frequenting the cliffs at high altitudes. Observed on Roan Mountain and White Top, Tenn., and on Clinch Mountain, Va.; also on Grandfather and Beech Mountains in North Carolina, all of similar terrain and within or adjacent to northeastern Tennessee.

Eastern Crow *(Corvus brachyrhynchos brachyrhynchos)*
Common. Increased in numbers in winter, due to migration from the North. Permanent resident.

Black-capped Chickadee *(Penthestes atricapillus atricapillus)*
Common, but less so than the Carolina Chickadee. We have had opportunity to observe both forms simultaneously within a small area. It is likely that the Black-capped is a permanent resident only at the higher altitudes, occurring in the valleys as a winter vertical migrant.

Carolina Chickadee *(Penthestes carolinensis carolinensis)*
Common. Among the friendliest of our winter birds. Permanent residents.

Tufted Titmouse *(Baeolophus bicolor)*
Common. "Sauce-box" of the woodland. Permanent resident.

White-Breasted Nuthatch *(Sitta carolinensis carolinensis)*
Fairly common in wooded districts. Permanent resident.

Brown Creeper *(Certhia familiaris americana)*
Rare winter visitor. Usually found singly, with a mixed group of birds.

Eastern Winter Wren *(Nannus hiemalis hiemalis)*
Rather rare winter resident in lowlands. Permanent resident in the mountains at high elevations.

Bewick's Wren *(Thryomanes bewicki bewicki)*
While this bird is a summer resident, it is so hardy that it frequently arrives during February.

Carolina Wren *(Thryothorus ludovicianus ludovicianus)*
Common in fields, woods and about the haunts of man. Permanent resident.

Eastern Mockingbird *(Mimus polyglottos polyglottos)*
Common. The State Bird of Tennessee. Loves the homes of man and can rout a cat. Permanent resident.

Eastern Robin *(Turdus migratorius migratorius)*
Occasional winter resident. More common than usual this (1932-1933) winter.

Eastern Hermit Thrush *(Hylocichla guttata faxoni)*
Rather rare winter resident. A lonely dweller in bushy thickets and woodland underbrush.

Eastern Bluebird *(Sialia sialis sialis)*
Common. Increasing in numbers. One of our choicest birds—the emblem of friendship. Permanent resident.

Eastern Golden-crowned Kinglet *(Regulus satrapa satrapa)*
Regular winter resident. Usually found in bushy woodlands and cedars.

Eastern Ruby-crowned Kinglet *(Corthylio calendula calendula)*
Rare winter resident, or may arrive in migration during February.

American Pipit *(Anthus spinoletta rebescens)*
Rare winter visitor.

Migrant Shrike *(Lanius ludovicianus migrans)*
Fairly common fall and winter resident.

Starling *(Sturnus vulgaris vulgaris)*
Probably our most common bird. Permanent resident.

Myrtle Warbler*(Dendroica cornata)*
Common winter resident. More abundant the past winter (1932-1933) than for many seasons.

English Sparrow *(Passer domesticus domesticus)*
Common. Pre-eminently domestic. Permanent resident.

Eastern Meadowlark *(Sturnella magna magna)*
Common, in open fields. Permanent resident.

Eastern Cardinal *(Richmondena cardinalis cardinalis)*
Common both in town and country. Highly popular. Perm. resident.

Eastern Purple Finch *(Carpodacus purpureus purpureus)*
Fairly common winter resident. You will find him in the tree tops.

Eastern Goldfinch *(Spinus tristis tristis)*
Common resident. Modestly clothed in brown and olive for the winter.

Red-eyed Towhee *(Pipilo erythrophthalmus erythrophthalmus)*
Fairly common. Lives among the woodland thickets. Permanent resident.

Eastern Savannah Sparrow *(Passerculus sandwichensis savanna)*
Rather rare winter resident. Found in open country.

Slate-colored Junco *(Junco hyemalis hyemalis)*
Common winter resident.

Carolina Junco *(Junco hyemalis carolinensis)*
Common winter resident—a vertical migrant. It spends its winters in the lowland valleys and breeds on the higher mountains at about 4,000 feet elevation and higher in the same latitude.

Eastern Tree Sparrow *(Spizella arborea arborea)*
Observed only during one winter, when a flock remained near Johnson City for several weeks.

Eastern Field Sparrow *(Spizella pusilla pusilla)*
A sparrow of the open fields. Permanent resident.

White-crowned Sparrow *(Zonotrichia leucophrys leucophrys)*
Rare winter visitor. A flock of about twenty-five observed late in December, 1932. Aristocrat of the sparrow family.

White-throated Sparrow *(Zonotrichia albicollis)*
Common winter resident. A lover of the woodland underbrush.

Fox Sparrow *(Passerella iliaca iliaca)*
Winter resident. Rare.

Swamp Sparrow *(Melospiza georgiana)*
Rather rare winter resident, choosing to live mostly in swampy lowlands

Eastern Song Sparrow *(Melospiza melodia melodia)*
Common in town and country. Most beloved of the sparrows. Permanent resident.

Johnson City, Tenn., August, 1933.

* * *

A TERRITORY AND MATING STUDY OF MOCKINGBIRDS*

By MRS. F. C. LASKEY

One day in late autumn of 1932, three Mockingbirds were noted in the garden, which is also a banding station, their actions indicating some argument was in process of settlement in primitive fashion. Some days later, at dusk, three Mockers were heard giving characteristic *chucks* as they settled to roost in separate sections of the garden. Could it be possible there were three wintering close about the house? Was there a mated pair in the group, or were they all males? These and many other questions came to mind, but there was only one way to definitely answer them—daily observation of this group, so marked that each individual could be recognized by means of colored bands. Therefore, special food inducements of fruits and bread were placed in strategic positions to capture these wary birds. First to enter a trap was an unbanded Mockingbird which was accordingly marked on the right tarsus with Biological Survey band No. B-216088, and above it, a bright red celluloid band. Soon after, a banded Mockingbird was captured bearing the number A-292703, which the records show had been placed on

(**Mimus polyglottus polyglottos.* Linn.)

him October 12, 1931. A bright yellow band was added, and now. in midwinter, it was known without doubt there were three Mockingbirds occupying the garden, for each morning as the fruit rations were distributed, one wearing a red band was seen in his usual place, the yellow-banded one could be found in another section, and in a third place could be located one wearing only an aluminum band. Lines could have been drawn marking the garden boundaries of the territories of these birds and by 8 o'clock of a morning it was seldom each bird could not be readily located in one or another of his favorite perching trees. This third Mocker, while unafraid of people, was elusive and trapwise, but at last he was caught in a drop trap, and how interesting was his record to the bander! He was A-280727, had been banded August 27, 1931; the very first Mockingbird trapped at Blossomdell station, had been recaptured at the same spot August 1 and August 29, 1932, and the nest had been in a rose vine a few feet away. A bright blue band was given him. Thus the three principal garden occupants became "R" for red, "Y' for yellow, and "B" for blue.

As each of these birds was handled, notes were made on plumage, giving particular attention to the white markings of wings and tail. The first ten primaries, including the very short first one, were marked with areas of white. These white areas, in the case of "R" were more restricted than those of "B" and "Y."

Daily observations were made with 8-x binoculars. It was noted all continued to occupy their respective territories, "B's" being the east section of lot, 80x300 feet, contained much shrubbery, many trees and a thick growth of rose vines on fence posts; "R" and "Y" occupied the west section, 120x300 feet, which included the garage and driveway. The house appeared to be the hub. "Y's" territory was larger than "R's," but the latter's, which was located in the portion toward the road, contained dense shrubbery plantings and hedge, while "Y's," in the rear, had numerous trees, but sparse low cover. Interesting to note is the fact that each of the three territories contained a feeding station where food was always kept and banding traps operated. Most exasperating to the bander was their persistence in attempting to drive off almost all other birds, though each paid due respect to the rights of the others. They met occasionally at their boundary lines and there seemed to exist a certain "camaraderie" on this narrow area of "no man's land." Several times little "dance" or 'sparring" maneuvers were noted between R and Y, also between Y and B. If one gave a cry of distress while being handled, another came scolding to the boundary. If other birds, particularly Robins, came to feed, one would reinforce the other by helping him dash at the intruders until they were routed, immediately retiring to his own territory. Once, when a strange Mocker, trapped elsewhere, was released for experimental purposes on the outer boundary of R's and Y's territory, Y immediately flew at the new bird, was quickly joined by R, both scolding and flying at the intruder (also banded), which caused the latter to leave at once. They seldom showed belligerence toward the small birds, with the exception of R, but he, when bits of bread were placed with the seeds, continued to dash at the various Sparrows and Juncos until the bread was removed and would do this even when large portions had been placed for him a few feet away with his fruit. R became rather tame, flying to meet the person bringing his morning apple.

On February 23, 1933, the first song of the season, low and sweet, was heard from Y as he perched on the lower branch of a hackberry near the house. Three days later, on his side of the garden, B sang the same type of song, but at times his was uttered in the softest little whisper. The two continued singing thus until March 12th, when Y's song increased in volume, in length, and quickened in tempo, and by the 17th Blue had followed suit. But R, still occupying his shrubbery corner, continued to make eating his principal occupation, and seemed to be overstepping his rights, for during March he was caught more than once by Y feeding in his province, and was noted on the evening of March 13th being driven back to his own section.

Not once was R heard singing, but on the morning of March 14th, when apples were distributed, R did not come, as usual, to claim his share, but a Mockingbird was singing very animatedly from R's favorite perch. Had R found his voice overnight? The singer came soon after to R's apple and the band was yellow! Y now occupied the entire west section and R disappeared and has not been seen again since that date.

Both B and Y were heard daily as they sang from the lower branches of young trees or shrubs, but on the morning of March 24th, clear, but frosty, another change was noted. Now they were singing faster and louder, their perches were higher; they sang as they flew; they stopped at a six-foot fence extending across the rear, flew into the air a foot or two, dropped back to fence. They flew in parallel lines, each on his own side of the house, pausing at front, rear or center almost inunison. They continued thus for several days, singing from the tips of higher trees as if their throats must burst. Once, on the 27th of March, they stopped on the rear fence and indulged in what appeared to be a little dance on B's side for a moment or two. The following day this ecstatic madness had increased, for now they were tossing themselves into the air from top of telephone pole, now swooping to the ground, back to a high perch, always singing with energy comparable to that of a jazz orchestra. The songs were thickly interspersed with call notes and songs of other birds or fowl. with their own sharp notes and those of juvenile Mockingbirds. It was amusing to note how they paralleled one another in those mad flights and how they appeared to imitate each other in song. Y, however, always had a larger repertoire of imitations of other song birds.

On the morning of March 28th, a peculiar rasping sound was heard, different from the harsh *chuck* heard throughout the winter. Then a Mocker appeared with Y in pursuit, both uttering these rasping notes. They circled toward B's territory, where the three continued their circling flight and rasping noises. The third bird disappeared. B and Y again resumed the dashing from shrub to post, to vine, etc., singing with great gusto. A new maneuver was now noted. Y alighted on a branch. ran with head down, tail and wings spread, to a fork, stopped there a moment, uttered a low *cluck-cluck,* then flew to another tree or branch and repeated the performance. B, meanwhile, on his territory, was performing the same type of antics. Though he confined his maneuvers to evergreen trees, clumps of rambler rose vines, honeysuckle-covered shrubs, the calls, the songs, the actions were essentially the same. Why these tactics and what had become of the new bird?

About fifteen minute later, a glance to the ground revealed B stepping before a vertical wire trap where the new bird had entrapped itself. It was banded for sight identification with two bands and plumage carefully noted. The general color was lighter than B and Y, the body feathers showing a distinct buffy wash; the tail was more plumbeous; the white area of the wing was decidedly smaller than the other two birds. This, it was concluded, must be a female, which B. and Y were attempting to interest in possible nesting sites by their peculiar actions of running into forks, shrubs and vines. A short while after this bird was released, she or another (their movements were too fast to see bands) appeared on Y's territory, the latter repeating the actions just described, dashing into young cedars in the front section of his domain. She then flew to B's side, where she and B went into a cedar for a moment, from which the rasping notes issued, but she soon disappeared. On the afternoon of that same day (March 28) both B and Y extended their singing territories, making flights to trees on adjoining vacant property at least 200 feet from their previous outer boundaries.

On the following day both began singing very early, but about 7:45 a. m. Y was noted singing on the recently added territory, flying to limbs, running to forks, giving the *cluck-cluck* sounds, repeating the performance over and over. All was quiet on B's side. Why the excitement? Was a female near him? None could be seen, but after five minutes. rasping notes were heard on B's side. A pursuit was in progress, from tree to shrub, to ground, across the road, back to the rear. It was B following an unbanded Mockingbird. She flew across the road now, pursued by both B and Y, then back to B's side of the garden. Y, returning, did not follow, but came to his own ground. This stranger disappeared without being captured, and both males resumed their usual program of song and defense of territory. About 9 a. m. the peculiar action of males and rasping notes indicated another visiting female. As she was pursued, she was heard giving a short call of two or three notes. She did not remain.

Occasionally, the Mocker occupying the garden across the road (not directly opposite) would trespass and twice joined in the pursuit of a visiting female. B left the lighter-colored visitor perching in the garden while he drove off the trespasser. While this happened, Y remained on his own side, singing most animatedly within sight of the female, and when she flew to his side, he began to pursue her. If she alighted, he would stop nearby with wings and tail spread, she responding with rasping notes. Again this day (March 29), toward evening, an unbanded female appeared and the same program continued until she left.

On the following day (March 30), another bird came which Y's behavior identified as a female. She immediately entrapped herself on his territory, was banded, plumage noted, and released. His invitation to nest in the various trees was ignored, for after preening her feathers she, too, passed on, Y following a short distance. On the 31st it rained, but both birds sang almost continuously.

On April 1st, another unbanded female appeared in the garden, stayed a while, flew to the road amid the lovelorn importunities of B, Y and the Mocker across the way, then disappeared. April 2nd, a Mockingbird was being courted in the usual way, but this one seemed to favor Y's territory. As she perched near Y, both could be plainly seen and through the binoculars she was noted to be lighter and smaller than Y, with a buffy wash on her body feathers. She spent the day feedingor perching, sometimes out of sight, but the actions of both males indicated she was present. As she was busy hunting food, both birds repeated the actions previously described. Now, when flying into trees or shrubs, it was noted the male picked up a twig, carried it into the shrub or vines, sometimes from one place to another. Y was noted carrying two twigs at once. Aerial pursuits were indulged in, followed by a gentle little ground pursuit, stepping in and out of openings in the hedge row. Occasionally the flight led into B's territory, when he would join the chase. Y tried often to lure her to the ground at the extreme end of his enlarged territory, but she seemed to be a coquette, spending most of her time on Y's side, but often "stepping over the line." Twice Y and B appeared on the verge of a fight, and once there was a "free-for-all" when Y, B and the Mocker across the way became a whirling, swirling mass of birds from which feathers flew. By April 3rd, Y was noted singing more sedately from low perches, as the female preened her feathers some distance from him. Sometimes there wold be a pursuit of her, sometimes a few soft notes would bring her flying toward him. It seemed surely Y had won a mate, but she still did like to slip over to B's side to eat his hackberries. Then, as B approached her, Y would quickly appear, seemed to chase her back, stopping sometimes to fly at B. Once B was noted on Y's territory playing the gentle little game of tag with her around a peony plant, but when Y appeared he flew to the housetop to sing (still on Y's side). While this unbanded female seemed much at home in the garden, she never ate any food about the traps, so marking her had been impossible.

At 6 p. m. on the evening of April 6th, Y was heard singing short songs on the lower branch of an ash tree, near the house, as the little mate (presumably) came to the privet shrubs at the window to roost. Seeing some one inside, she flew to the tree beside Y. In a few moments she returned to the privet, followed by him. He settled on the same twig a few inches from her, where their silhouettes were noted in the moonlight at 11 p. m. The following day Y appeared to be trying to interest the pretty lady in nest building, flying frequently into shrubs, particularly a young cedar, often carrying a twig. He seldom was very far from her, and always within guarding distance, giving soft warning notes at the approach of some one. When he ventured too close to her she evaded him or pecked at him. On the evening of the 7th she came to the same privet alone to roost while Y sang from shrubs near his favorite cedar tree until 6:40 p. m. as darkness came. However, at 9 p. m. the nervous little lady bird became frightened and with a few sharp *chucks* flew away in the moonlight while a short answering song was heard from Y.

The following morning B was singing loud and fast as usual, and so was Y after nearly a week of softer toned music. Y was located at the very tip of his singing tree, and it sounded as if his throat must burst, and what loud, shrill *peep-peep* calls he uttered in the same frenzied tones he had used previous to the days of the little lady. Both Y and B had resumed the clowning antics in the air, and the dashing from front to rear. Is he again joining B in telling the passing Mocker ladies about himself and his possessions? His erstwhile companion could not be found.

About 10 a. m., while B was flying, singing, into the shrubs on his side. Y was noted leading a sleek-looking little bird into the cedar, then into a shrubby hackberry. As their actions were watched for an hour, she appeared to be really interested in home sites, though when he came too close to her, she repulsed his familiarity by pecking him. As he perched above the young cedar, singing very softly, she went into it, remaining at least five minutes. Y then flew some distance, picked up a twig, flew in a semicircle to a perch, paused a moment, then he, too, went into the cedar. A close check was made the remainder of the day, but no further nesting activities were noted. The pair fed as during the past week, rasping notes were heard occasionally,but the male was seen more often, apparently on guard while the female hunted insects. Again, on this day, B came close to her as she fed near the boundary line. Y immediately came, flew at B, but no actual encounter ensued. A very ludicrous incident followed, for in a moment the two males were standing on some low, uneven rocks that wall the creek, facing one another, stepping backward and forward in the dance or sparring maneuvers characteristic of Mockers. Watching each other as they stepped backward, forward, sideways on the uneven rocks, both almost completely lost their balance several times. It ended suddenly as each turned his back and began hunting insects.

The next morning, April 8th, Y was again in the tip of the hackberry, singing almost as loud as B. Why? What had become of the female? Both birds spent some time dashing into the air, singing frantically. Then a rasping noise was heard on B's side; a female had appeared. She went into the rose vines a moment while Y was running into tree forks. She was pursued a bit by B, but went to the creek and bathed. B flew above her, broke off a twig, carried it into a rose vine, singing continuously. As she allowed the close approach of an observer, she was noted to be light colored and unbanded. While she hunted food, B modified his singing, often pursuing her, rasping notes being heard during the pursuits. Y continued his singing, endeavoring to entice her to his side, ventured once on B's territory, but was quickly routed by him. This new female entered the drop trap for food. This fact and her fearlessness seemed to indicate she was not not the one that had spent the previous week on Y's territory, disappearing Friday night, the 7th of April, apparently returning mid-morning Saturday, only to leave again that night.

On the morning of April 10th the rasping notes in the shrub border indicated the female was there, and Y was heard singing madly from the tip of his tree, dashing into the air, etc., but at 6:45 a. m. a change in his behavior was noted and then a light-colored, unbanded bird was located in his territory. Y began the usual tactics of leading this new caller into the bushes, once carrying a piece of nesting material at least a foot long. This new bird, like the one on B's territory, fed on apple the first day of her arrival. However, no attempt was made to trap either for a few days, for both pairs appeared to have se ttled in their respective territories. The males ceasd the wild singing and the clowning. The songs now were shorter, moderated in tone and tempo.

April 14th B's mate and on the 16th Y's mate were trapped for banding. Both birds were found to be lighter colored than the two wintering males. Comparison also showed the wings of both females to be lighter in color with smaller areas of white, but all Mockingbirds examined had ten primary feathers marked more or less with white.

The occupied nests of the two mated pairs were found shortly after in each of the two territories, so the males had finally achieved success in their matings, the B's rearing two young and the Y's four, all of which have been banded with both numbered and colored bands. One of the interesting observations of these newly fledged young was the difference in color of the iris of the eye. The young had dark grey eyes and the adults have yellow or yellowish orange.

Both B and Y indulged in another period of song before the second nesting. B's extended from June 4 to July 23, beginning in his original winter territory, but eventually his singing territory covered very nearly the entire lot. From July 3rd to the 10th, his ecstatic songs were almost as animated and continuous as those of spring, but in addition he sang lovely melodies during the night. The nest was found in a silver maple about a hundred feet from the first one, and on August 17th the three nestlings (about 10 days old) were banded from it while his mate of the springtime (banded blue, left tarsus) fussed and scolded.

Y's period of singing started later, June 8th, for though his first brood was older than B's, he was a more devoted parent. His singing territory extended across the entire rear of the lot (a partial change from the original). One contact between the two males was noted July 4th, when Y routed B from the rear fence, chasing him to the front, where they engaged in a tussle. But by June 18th Y had reached the climax of his less spectacular singing and almost deserted the banding station. Though his springtime mate was caught in a water trap on July 7th, they frequented a section about 300 feet to the rear of thestation, where, doubtless, the nest was located. On August 22nd, Y again appeared at the station, accompanied by his second brood, which were well developed by that date, hunting food for themselves. He was still guarding them, however, for when each of the three was captured for banding, he scolded and flew above the bander in response to their squeals.

During August and continuing into September, territory lines appeared to be ignored for many groups, in addition to the Ys, came unmolested to the station, immatures predominating. Water drip traps proved irresistible to these Mockers. and over forty were banded, though none of the early spring visitants nor any of the first two broods reappeared, the latter having all left by the end of June.

While the records of B and Y indicate some Mockingbirds occupy the same territory over a considerable period of time, other observations made simultaneously indicate considerable movement, both winter and summer. In proof of this the disappearance of R may be cited and in late May the advent of an unbanded and unmated singing male which occupied approximately the same territory as R, for by that time both Y and B occupied smaller territories, while feeding their fledglings. Additional records of winter and spring movements were made at a banding substation which added data to this phase of study. A Mockingbird banded green that had been defending his winter territory belligerently from other species disappeared and his place was taken by a singing bird late in March, the latter mating and nesting there. Again, winter wanderings were proven when at the request of a bird lover, a Mocker which appeared late in January and monopolized the feeding shelf in her town garden was deported some miles into the country after banding with numbered and colored bands. Within a few days another appeared at the same feeding shelf. This one also was banded and released in the suburban section. Within a week, a third Mockingbird arrived, unbanded, which showed it to be still a different bird, and neither of the two that had been deported.

A close study was made of these color-banded Mockers to ascertain if the area of white showing in the wing might be relied upon as a true sight identification of the sexes. It was learned beyond a doubt that the amount of white displayed is no indication of the actual area, for comparative purposes. The same Mockingbird may appear to have a very large white spot, or none at all, depending entirely upon the position in which the bird holds the wing.

As to the difference in color of the two sexes, the females examined, with one exception, were a considerably lighter gray, washed with buff, and with a smaller area of white on the wing. They also appeared smaller in size and were lighter in weight. Whether a comparison of the same birds after the autumn molt will reveal the same differences is still an open. question. It is probable that the darker coloring of these wintering males is due to some extent, at least, to the soot produced by soft coal which forms Nashville's fuel supply, while the females arrive fresh and clean from country unpolluted by such coal smoke. Mockingbirds which winter in the city factory district are almost black from soot.

Comparison of wing feathers seems to indicate that the larger areas of white in wing and tail are indicative of age, rather than sex in this species. Further data is being gathered regarding this.

A close check was made on voices and songs. The female in the spring was noted to use only the rasping notes, except in two instances, when short calls of two or three notes were made while in flight, as she was being pursued. Later, when the young were fledged, she frequently used the sharp *chuck* like the male when expressing alarm or protest. Her rasping notes sound very shrewish in contrast to the marvelously gifted singing males which delight the listener with music famed in song and story of the Southland.

Nashville, Tenn., Sept., 1933.

THE ROUND TABLE

THE SEASON AT MEMPHIS: A pair of Prairie Horned Larks were seen north of town near Woodstock on May 21, which date would indicate nesting. None have been seen at the Municipal Airport since March 12, but trips out there have been uncommon and access to the field denied us. At dusk on May 25th we saw 35 Ruby-throated Hummingbirds in the red clover carpeting the levee southwest of Mud Lake. The Darwin-Ensley bottoms were visited June 17, about three days after spring flood waters receded, but Mississippi Kites, which we reported there last year, were not seen. On a second trip Aug. 6, one Kite was seen, and on Aug. 13 three were seen.

A few shorebirds visited the Lakeview barrow pits during August. On Sept. 17, 5 Lesser Yellowlegs were observed there. An Aug. 13, two Stilt Sandpipers were seen. About 50 Least Terns, adults and immature, were feeding at one pond on this date and Franklin McCamey and Bert Powell saw about 80 on North Lake, on Aug. 20. Two Black Terns were also seen on the 13th.

Wood Ibis seem more common this season, as indicated by the following records: Mud Lake, Miss., Aug. 6, —10; Aug. 13, —55; Sept. 10, —130 (one flock), 11, 9; Sept. 17, none. Harahan viaduct barrow pits (in Arkansas, just west of Memphis): Aug. 20, —55; Aug. 21 (McCamey), —125; Sept. 10, —120; Sept. 16, —8. American Egrets are less common than in previous years and Little Blue Herons might be said to be almost uncommon.

A Black-throated Green Warbler and 250 Tree Swallows were reported at Hernando, Miss. (12 miles south of Tennessee), on July 30 by McCamey and Powell. Warblers noted so far seem to be mostly Magnolias, Black-throated Greens, and Black and White, and these are uncommon. Local records of Painted Buntings, rare heretofore, will be given in a later issue. This was a Painted Bunting year, at least five males and three females were seen and two broods reared successfully. The first one seen was visited by most local bird students from May thru July.—Ben B. Coffey, Memphis.

KINGBIRDS IN THE ROLE OF ROBBERS.—On August 20, while we were looking for water birds along the shores of North Horn Lake, in the extreme southwestern corner of Tennessee, we witnessed a most interesting occurrence. We came upon a flock of about thirty Kingbirds, resting in the willow thickets along the shore and occasionally darting out after food, but they were not catching insects; they were feeding on minnows. Two and sometimes three would dart out to a distance of never more than forty feet from shore and worry one of the numerous Least Terns that had just caught a small minnow, until the Tern would drop its prey in fright and then, screaming madly, fly away. If a Tern were stubborn, an unusually eager Kingbird would actually snatch the minnow from the very bill of the Tern. The first Kingbird to get the fish in its bill swallowed it, not even giving his allies a chance. Sometimes the falling minnow was caught before it could hit the water, but more often the lifeless tidbit was picked up off the surface. This performance was repeated many times while we watched, but never twice in succession by the same birds. A single Kingbird never risked an attack on a Tern alone.—Bert Powell and Franklin McCamey, Memphis.

(The ability of Kingbirds to rout a hawk or crow is well known and in the present case it seems they used this trick to supplement their bill of fare. —Eds.)

LATE SUMMER NESTINGS: A drouth in early summer, followed by a long sustained period of ample rains, has produced more than the usual number of late summer nestings. As we go to press (Sept. 18), the woods and fields are nearly as green as in spring and insectivorous food and water is abundantly available. Herewith are given some late summer nestings from the Nashville area:

By H. C. Monk: Mourning Dove; (a) Aug. 4, bird sitting on a high nest; on Aug. 17, it was empty. This pair were feeding young of an earlier brood on July 25. (b) Aug. 7, bird sitting on a nest that was first occupied on April 5; on Sept. 3, this nest held 2 large squabs; on Sept. 6 they left. This pair had a mid-season nest nearby from which 2 young left on Aug. 1. (c) Aug. 11, building a nest, never completed, however. (d) Aug. 19, Dove sitting on nest, over sidewalk; on Sept. 9 it was empty. Yellow-billed Cuckoo; (a) Aug. 8, sitting on 2 eggs, Peabody campus, destroyed a few days later.—Crook. (b) Aug. 14, sitting on a very high nest; on 19th was empty. (c) Aug. 17, bird sitting on nest; 22nd was empty; 29th a young bird with tail half grown out, seen sitting 50 feet away. Cardinal; (a) Aug. 12, brood of 2 left their nest and during the same hour the male parent was killed. On the 19th, young still nearby, being tended by female. (b) Aug. 11, brood of 3 left a nest. Towhee, Aug. 12, sitting on 3 eggs. This set replaced a brood of 3 (from a set of 3), which was destroyed Aug. 3. This last brood was reared to large size and believed to have left the nest safely. Mockingbird (a) Aug. 6, a brood left a nest; number not certainly known; third brood for season by this pair. (b) Aug. 7, a brood of 4 hopped out of their nest on my appearance; an hour later, at 4 p. m., two were back in it. Next morning all were out. Robin. (a) Aug. 5, a brood left high nest, in park. (b) Aug. 10, a young bird on ground, just out of nest. (c) Aug. 10, another youngster, just out. (d) Aug. 11, young left another nest. (e) Aug. 12, 2 young in a nest in park. Left on this date. (Note: Young birds just out of nest are very weak and also unsuspicious. On the following day they are much more difficult to approach.—H. C. M.)

Mrs. F. C. Laskey: Carolina wren, July 28, completed set of 4 eggs; her 5 young had fledged on July 17. Her mate was killed July 29. Her eggs began hatching Aug. 12, but she disappeared. Catbird, July 29, Catbird brooding set of 3 eggs; on Aug. 14 there were 2 young which I banded and they remained several days longer. Field Sparrow, Aug. 3, 2 young just hatched. They left nest Aug. 9, when banded; one accidently killed Aug. 24, other in traps daily since then, sometimes with male parent. Bob-white. Aug. 8, parent with small young. Mockingbird. Aug. 17, 3 young, about 10 days old. Yellow-billed Cuckoo. Sept. 2, nest with young; parent has been calling 3 or 4 days, fledged about Sept. 3.

G. R. Mayfield: Bluebird. July 13, 1 young and 3 eggs. Prothonotary Warbler; July 19, hatched eggs. Cardinal; July 19, eggs hatching. July 31, Indigo Bunting, feeding young, just fledged. Summer Tanager; Aug. 19, young just hatched. Sycamore Warbler; Aug. 19, young, a few days out of nest. Dove; Aug. 12, female on nest, male cooing.

Jack Calhoun: Phoebe; Aug. 3, 3 eggs, fresh. Dove; Aug. 6, 2 eggs. Cardinal; Aug. 6, 3 eggs, young in nest on 22nd, gone on 25th. Field Sparrow; Aug. 7, 2 large young.

H. S. Vaughn: Ruby-throated Hummingbird, July 1, 2 eggs, over Stones River, in water maple. Nest 15 feet up. Indigo Bunting, Aug. 20, 3 young, 3 days old.

SUMMER NOTES, 1933.—June 12 to 24 was spent in further field work on the summer birds of the Great Smoky Mountains. Part of the first week was spent with E. V. Komarek, on Mt. Guyot and at the beginning of the second week I was joined by G. R. Mayfield; together we worked the tops between LeConte and Clingman's Dome as well as Cades Cove. The results were very successful and are being combined with previous notes for later publication. On July 16, Messrs. Mayfield, Monk, Woodring and the writer made a trip to Mingo Swamp, in Franklin County, near Winchester. We were joined there by Mr. Frank Patty. The swamp covers nearly a square mile and is for the most part grown over with timber. At the time of our visit it was dry except for an open slough on the east side, where we recorded Little Blue Heron, 4 (in white plumage), Great Blue Heron 2, Green Heron, 4, and Pied-billed Grebe 2. Two Red-shld Hawks were conspicuously in evidence and a Red-tailed was seen. No unusual land birds were noted. At a shallow, open pond of 10 acres, near Belvidere we secured a close view of an American Egret. There was also a Pied-billed Grebe here as well as a Spotted and 4 Solitary Sandpipers. A Shrike was noted nearby. On July 15, a nest of the Grasshopper Sparrow was found near Nashville. One of the eggs was infertile while the other three were incubated 4 days. Young were perched on a nearby fence. On Aug. 12. Mayfield and the writer visited a small slough surrounded by rank grass, where we had found two Short-billed Marsh Wrens on Aug. 20, 1931. On the present visit we were able to locate at least three, by their song, but found them difficult to flush. A male, in breeding condition, was collected, leading us to believe that these birds will eventually be found nesting within the state.—A. F. Ganier, Nashville.

NOTES FROM THE HERBERT DOMAIN: The Herbert Domain is a 11,000-acre timbered tract belonging to the State and situated in Bledsoe County, atop the Cumberland Plateau. At its northwest corner Bee and Glade Creeks unite and cut a cliff bordered canyon thru which their swift flowing waters make their way into "The Gulf" of Caney Fork, five miles further on. Surmising that the combination of wild country and rugged topography might be such that Duck Hawks and Eagles could still exist here, A. F. Ganier and the writer, on August 27, took a long anticipated trip to this point. Having arrived the day before we were able to be afield early and made our way along the canyon nearly to Caney Fork. The scenery was excellent and a number of promising escarpments, including Copper Cliff, were examined with care. A Red-tailed Hawk seemed to make this cliff his headquarters, but no other raptores were seen in the canyon during the day nor was there any evidence of a Duck Hawk eyrie on the cliffs. Considerable scrub pine grew here and a sharp lookout was kept for Red-cockaded Woodpeckers. In the hemlocks along the streams the Black-throated Green Warbler was often heard. An excellent list of birds was made, the major portion of which were found about an area where the land had been in cultivation for a number of years.

Late in the afternoon an unusually large migration of Nighthawks was observed. Over almost every clearing was seen a flock of these caprimulgridae, numbering twenty to more than a hundred. There must have been many thousands of them passing over this section of the plateau, for as we drove southward, we continued to see flocks of them during the half hour before sundrown. Mr. Frank E. Morse, of Boston, Mass., passing thru Crossville, about 20 miles northeast and at the same hour, reported them in large numbers at that point.—George R. Mayfield, Nashville.

DUCK HAWK, ETC., ON THE PLATEAU: The habit of these falcons to use a nesting site for many years is quite well known, so during the past spring a visit was made to Grundy County to ascertain if the pair located there some years ago (see Wilson Bulletin, 1931, pp. 3-8, Ganier) were still present. On April 16, our party spent a day along the high escarpments and on approaching to within a few hundred yards of the nest, saw one of the falcons, presumably the female, hanging in the air overhead. She circled continually at quite a distance above us without any perceptible movement of wing; quite different from their manner of flight noted on previous visits, which was produced by continuous flapping of wings. Later, as we reached a point where we could look into the nest, she appeared more concerned and indulged in flying up and down the valley but at a distance of several hundred feet. The eggs, which had not hatched as yet, were laid in the same old Red-tailed Hawk's nest that the falcons have used for nine years. This old nest is in a niche of a vertical cliff more than 100 feet high.

Returning thru the "flatwoods" on top, we noted a natural cavity in a small living oak by the side of a spring branch. Approaching, a Screech Owl flushed from a lower limb and upon climbing, it was found that its mate was at home in the cavity. Beneath her were two pipped eggs and two young, just hatched. When lifted from the nest she resented the instrusion by snapping her bill and sinking her talons deep into the flesh, making wounds which bled freely. Not far away we passed thru the pine woods in which Dr. Mayfield had seen Red-cockaded Woodpeckers in August, 1931. We could not locate any of these birds, however, after an hour's search. Pine Warblers were common here. Pileated Woodpeckers to the number of six were seen during the day, one pair feeding about the base of trees on a Beersheba Springs lawn permitted us to inspect them at leisure from a distance of 100 feet. G. M. Yarbrough, Nashville, Tenn.

NOTES FROM QUEBECK and ROCK ISLAND, TENN.: From a point several miles up the Caney Fork River comes a report of a Pied-billed Grebe, probably a very early migrant, but possibly a summer resident. The bird was recorded on August 3, at which time as well as early in July a Great Blue Heron (subsp?) was seen. Little Blue Herons have been common late summer visitors. A trip to a fairly large swamp and marsh, between Rock Island and McMinnville, on August 15 proved valuable because of the discovery of a Least Bittern, presumably a summer resident. This bird is a very rare summer resident in Middle Tennessee, but the date seems a bit early for migrants of this species. At the same place a King Rail was heard, and a large flock of Bluewinged Teal was seen, probably the first arrivals of this bird in the fall migration. The first Spotted Sandpiper observed at Camp Hy-Lake (two miles south of Quebeck) was seen on July 25, but the Solitary Sandpiper was not noted until August 7. On July 28, a few Black Terns were seen.

Among the land birds seen at Camp Hy-Lake, the Black-throated Green Warbler proved one of the most interesting. The bird is not normally found as a summer resident in this Highland Rim area, but the species first put in its appearance on July 13, a date much too early for this bird as a true migrant. It is Mr. Ganier's opinion that these birds had bred a few miles eastward on the edge of the Plateau, where their favorite trees—hemlocks—are found and that they were merely roaming about. The next individuals were seen on July 20, and they were uncommon until August 10, after which they became common. The first migrants among the land birds appeared on August 12, when the Parula Warbler and the Barn Swallow were recorded. It might be of interest to note here that in spite of the proximity of the location to the plateau section of the State, the Chuck-Will's-Widow was almost abundant, and the Whip-Poor-Will was neither seen nor heard a single time. The next transient to appear was the Chestnut-sided Warbler, on August 18, and on the same day I got the best find of the season—a female Mourning Warbler. I got a very good look at the bird and observed plainly its gray head. It had a small fragment of eye-ring above and below its eye, indicating that it was not a male; furthermore, its head was not as dark a shade of gray as is the male's. The bird's habits, haunts, and coloration all indicated that my identification was correct. On August 21, at Lebanon, Tenn., I saw a Woodcock, a Northern Waterthrush (subsp.?) and a Canada Warbler.—Henry Stevenson, Birmingham, Ala.

A PURPLE FINCH was found dead, about April 25, 1933, under a tree at Sterling Court Apt., Nashville, by Mr. E. O. Harbin, who noted that it was banded; the number being A-292374. Inquiry made of the U. S. Biological Survey brought the information that this finch had been banded on May 7, 1932, by Mrs. K. B. Waterbee, at Pomfret, Conn.

MOCKINGBIRD STUDIES: Members of the T. O. S. are fortunate in having abundantly available for study this spirited and unusually intelligent songster of world-wide fame. In the past, we have had several articles on the Mockingbird and in the present number we present further studies, prepared by Mrs. Laskey. There is much to be learned about birds in general from the careful study of one species and we hope to present more along this line in future numbers.

MEETINGS: The Fall Field Day of the T. O. S. will be held near Nashville on Sunday, Oct. 22, at a point near the city to be selected by a committee. As usual, it will consist of an all-day listing of birds with an al fresco luncheon at mid-day. All members are urged to be present. Nashville bi-weekly meetings are scheduled for Oct. 2, 16, 30, Nov. 13, 27, Dec. 11 and on Sunday, Dec. 24, the annual Xmas bird census. Our Knoxville and Memphis chapters will meet regularly but have not sent in their schedule of meetings.

AUTUMN: Each season brings its problems and activities for the student of bird life. Thus, the fall of the year is enriched with the mighty phenomena of bird migration—millions of feathered folk, overcome with restlessness, change entirely their place of residence or move about over the land with no thought of the home ties that have bound them. Sex instinct becomes dormant and the urge for food is uppermost, for they must fatten their bodies against the winter's cold or strengthen it for long sustained flight. Northern birds arrive, to settle down for the winter in mixed groups, where their forebears have found food and shelter sufficient for their winter needs. As the leaves fall, new habits of roosting must be learned and they seek shelter on or near the ground or in the cavities of trees. Gregarious birds gather in the evenings to roost among the high trees while by the tenth of October the Chimney Swifts are at the height of their abundance and, at their roosts, furnish the most spectacular sight of the autumn season. In the woodlands, Nuthatches, Titmice and Red-bellied Woodpeckers are busily gathering and storing away nuts with noisy chatter. Be afield at this season and you will learn much that is new to you about birds and their ways.

We have to a large extent dropped the use of the scientific names in these columns. The common names of birds have become so standardized that there is no longer need for misunderstanding. Scientific names corresponding to the common names are those adopted by the American Ornithological Union and can be found in the Check List or any up-to-date handbook. In feature articles or when new and rare birds are recorded for the first time in these columns, the scientific name will be printed along with the common name.

* * *

The Migrant is sent to all members not in arrears for dues. Active membership is one dollar per year; associate membership is fifty cents. Subscription to non-members, sixty cents. All articles, correspondence and dues should be sent to the Editor-Treasurer, G. B. Woodring, 1414 Stratton Ave., Nashville.

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NOTES ON THE PAINTED BUNTING AT MEMPHIS

By BEN B. COFFEY

The Painted Bunting (*Passerina ciris*), generally considered the most beautifully plumaged of our native birds, is a common bird in the lower Mississippi valley, ranging northward up the river until it becomes rare at the latitude of Tennessee. This species was inadvertently omitted from the **Distributional List of the Birds of Tennessee**, published early this year, although several records for this county had entitled it to a place in the list. As if in protest to the exclusion, five males and at least three females appeared on the scene here during the past nesting season.

Bird records for Memphis begin with 1928, being based on field trips by the writer and other observers made since that date. Since our field work has by no means included visits to all likely habitats of this bird, it could have existed in some places of course other than in those noted in the few and scattered records which follow. My first record was made May 26, 1929, when I discovered a male singing from the cross-bar of a telegraph pole along the Illinois Central Railroad, just south of the Memphis city limits at East Junction. It showed a preference for these cross-bars, as I attempted to learn its pretty but not forceful song, a song which bears a slight resemblance to that of the common Indigo Bunting. A short hunt for a possible nest was unsuccessful. The evening of May 29 I may have heard its song again, and on June 1st, with Erie Henrich, I saw the bird for a second time. This species was not observed again in 1929, but a male was seen here twice the next spring, one of the dates being May 2nd. John Bamberg also recorded a male in Riverside Park on May 2, 1930. A lookout was kept for them and East Junction was visited assiduously, but no other one was seen until this year. Very occasionally some one tells me of seeing a male Painted Bunting, and while it is conspicuously colored and should be easy to identify without confusing it with some other species, I have been inclined to disregard all but two instanecs. Gerald Capers, veteran Scout leader and nature student, saw one in Overton Park, the last part of April, 1927. Mrs. A. L. Heiskell saw one the past spring, as will be noted further on.

After two years' apparent absence, five male and three female Painted Buntings spent the summer of 1933 with us. Previous visitors were only seen once or twice, but Bunting No. 1 could be found from May to the middle of July any time we wanted to show it off to other bird lovers. No. 1 was discovered April 29 along the Illinois Central tracks and southward between North Second Street and the Wolf River. Its song led to its discovery and by learning to recognize the song we were able to locate the bird on most subsequent visits. This bird seemed to have a very large territory, about 400 by 200 yards, with several favorite perches. The next afternoon I returned with Mrs. Coffey and Bert Powell, so they could see their first individual of this species. A second trip at twilight was necessary, but fortune favored us, for as we turned to leave, the little beauty flew out of some weeds just in front of us. The first trip in May was unsuccessful, but on May 16 we observed it and on the 19th, saw our first female of this species. She is decidedly more yellowish and light greenish than the female Indigo Bunting. On the 21st Mrs. Coffey and I watched the pair over a half hour as they apparently were searching for a nesting site. The male would at times sing from the top of a pile of waste steel shavings or a gasoline storage tank. The Reelfoot expedition crowd listened to it on the 27th, and on June 1st it seemed to be covering as wide a range as ever. On June 18th an unsuccessful search for the nest was made in a few likely and frequented spots. July 9th the adults were found feeding three young, two about 4 to 5 days out of the nest, and one about 2 days out of same. The male did not sing. On the 13th it was found singing, this being the last time No. 1 was seen.

Meanwhile, Bert Powell was so elated over his first sight of this beautiful finch that he began to search for others near his home on the opposite or south side of town. On June 12 one was discovered on some high ground south of the Quaker Oats plant and verified by myself on June 17. On subsequent trips to search for a nest, no bird was seen by Bert, so we went again to the place on July 11 and found the male singing and a female. On the 13th, Bert found no female, but watched two males fight. The original No. 2 pair was seen July 17, the male again July 20, and on the 23rd he saw the female and one immature bird. This was the last record for No. 2. No. 3, his rival, was seen only on the 13th. On April 29, Mrs. A. L. Heiskell, of 1240 Tanglewood, noticed a beautiful varicolored bird in her yard. Her description was a perfect fit for the Bunting. A closely-built-up residential section, only a partial search could be made, and this individual was not found again unless it happened to be the same as No. 5, found two blocks away in a field near Lamar and Castalia by Bert Powell on July 28. We failed to find one at this location on August 6. This section is slightly over a mile from where numbers 2 and 3 were observed in combat.

While we were driving often to the opposite outskirts of the city, hoping to find the first nest of this species in Tennessee, a pair were nesting within two blocks of our apartment, near a bayou, and a stone's throw from the big Sears-Roebuck building. Miss Alice Smith, while playing tennis, thought she heard the bunting's song several times, but failed to find it on the only search she made. Miss Winifred Smith later remarked to her and to Mrs. Coffey, on Sunday, July 16, regarding a beautiful bird seen on her back porch about July 2nd. An immediate search failed to find No. 4, but on the next day, the 17th, Miss Alice Smith found a pair of Painted Buntings and a nest with three young, completely filling it. The nest, a small, cuplike structure of grasses and weeds, was located three feet above the ground in a small elm bush at the side of an old path. Any one using the path would have brushed the nest. Mrs. Coffey and I visited the site and found the singing male, but it took the earlier discoverer to point out the nest to us. She found the young still in the nest at noon on the 19th, but in the evening I found the nest empty. On July 25 I watched the female feeding a young bird which was following the parent around. This was our last record for the season.

During the coming Spring it will be interesting to observe to what extent these birds return to occupy their old territories. Other likely spots will be closely watched for additional pairs.

MEMPHIS, TENN., Nov., 1933.

NOTES ON DUCK HAWK NESTINGS

By F. M. JONES

The Duck Hawk (*Falco peregrinus anatum*), the most interesting of all the hawks, is not as plentiful as in the days of old, when they furnished sport for kings and nobility, and it is a tribute to their hardiness and resourcefulness that they exist at all, for the hand of man, except for a few of the nature lovers, are turned against all hawks alike. The principal reason for this is plain ignorance, for hawks in general are more beneficial than harmful, and something must be lacking in the makeup of a person who selfishly destroys something which they cannot appreciate. That the Duck Hawk feeds principally on birds is too well known to contradict, but if all the facts were known it is doubtful if they do much harm along that line, for Blue Jays and Crows, the enemies of all small birds, form an important part of their bill of fare. Even though they ate only birds rated as beneficial, man would have no right to exterminate them. Only last spring, 1933, a storm sweeping across the upper part of East Tennessee killed more small birds than all the Duck Hawks in the United States could consume in many years. Recently, an article came out in a national publication in which the writer stated that a pair of Duck Hawks coming under his observation in East Tennessee were, "as far as known, the only pair of Duck Hawks nesting in the Southeast portion of the United States." To the uninformed public this might be accepted as a fact, but it lacks quite a lot of being true, and the statement is to be regretted. Other pairs are known in the section he writes of, as well as in other parts of the State. Two of them found by Mr. Robert B. Lyle of Johnson City, Tennessee, have been visited by myself. These are in the upper part of East Tennessee, and due credit is given Mr. Lyle for the opportunity of getting first-hand information about their nesting. The first nest was found by Mr. Lyle several years ago, and after inspecting the situation several times it was found to be inaccessible on account of a tremendous overhang of the steep rock cliffs. The second pair of Duck Hawks were located by Mr. Lyle on April 2nd of this year—1933—and knowing my interest in finding their nest, he very generously turned the proposition over to me. On April 5th we went to the location with a view of finding the nest if possible, but as there was a half a mile or more of the cliffs along the river, making it possible for the exact site to be most anywhere along this front, we had our work cut out for us to start with. We started out at one end of the cliff, taking turns going over and being pulled back or climbing hand over hand if the distance was not too much for us, using a single length of stout rope. Just as it was getting dark we found on a narrow ledge the egg shells of the past season's hatching and not far from them on the same ledge was a hole rounded out in the fine soil which covered the rocks, with a few downy feathers in it. The hawks by this time were making considerable fuss, so we were satisfied we had succeeded in our mission of finding their nest. Mr. Lyle came back the following Sunday to try to locate the nest for me, not thinking I had found it, and after watching the hawks through a pair of binoculars going to a certain ledge numerous times, got the impression that they had young in that particular place and wrote me to that effect. While I was confident that I had located the nesting ledge on my first trip, Mr. Lyle wrote me so convincingly that I decided there was no use waiting for three weeks longer, as I had at first intended, so I went back on April 14th. After prospecting his location and finding nothing, I went over the cliffs to the place I had previously located and there found one egg in the hole which the hawk had rounded out. We waited until the 22nd, and went back, expecting to find the set of eggs complete, but only found the single egg. Both hawks had seen me at their nest on my last visit and promptly abandoned it. This meant a further search on our part, but as we had covered the most of the suitable nesting ledges on the first visit, two hours of rope work resulted in locating another fresh hole, scratched out at a place which showed signs of having been used in years past. Three weeks later (May 14) we returned and before going down to the ledge it was evident that the hawk had a full complement of eggs and had begun to incubate them, for we first watched the cliffs through the binoculars and saw the male hawk fly to the nesting ledge with a bird and then leave immediately. The rocks at that particular spot were well whitened with excrement, a sign present at all nesting places, so we went on up to the ledge above and rolled a rock over, which flushed the hawk from the nest. This nest was not difficult to get to, and I lost no time in sliding down the rope to the nesting ledge and viewing the beautiful set of three eggs. This made all of the previous hard work seem well worth while, and gave me a tremendous thrill. During the time I was at the nest, which was on a flat ledge 24 inches broad, the female hawk flew around constantly, making a considerable fuss, and at one time coming in very close to me. The male hawk contented himself by soaring over the river, some distance away, and did not come very close at any time. The cliffs at this nesting site, as well as the one where the one egg was found inclined outward, making it impossible for any loose rocks to fall into the nest. With a southern exposure and no protection at all from the sun, it is difficult to understand how the young could survive, but tales of numerous broods being raised at both places seem to indicate that the situation is to their liking. The eggs which I collected proved to be perfectly fresh, and measured as follows: 2.25x1.74, 2.17x1.80, and 2.12x1.74.

Below the nesting ledges of the hawks were several large caves, around which were congregated about a hundred and fifty Black Vultures, and quite a number of Turkey Vultures. These were mostly non-breeding birds, as only three nests of the black species were found, and one of the Turkey Vulture. The remarkable part of it is where all these birds find enough to eat at that particular place, for I found them present on each of my visits, which extended over a period of three months. Another incident that impressed me was the soaring of the Duck Hawk. Various publications on the subject do not credit them with much soaring, yet I have seen them soar for hours right in the mass of soaring Black Vultures, with which were mixed a few of the Turkey Vultures as well. Occasionally one of the hawks would make a dive at one of the latter species, which would immediately dive earthward, but the hawks did not pay any attention to the Black variety. While the "buzzards" would have to do considerable circling around to regain their former altitude, the hawks would go straight up on set wings without the least effort.

People who have been living in the neighborhood of these cliffs have known of the Duck Hawks being there for the past twenty-five years, and it is very likely that they were using the same nesting sites for many years before they were first observed there.

Independence, Va., June, 1933.

* * *

REVIEW: "Birds of the Atlanta Area," by Earle R. Greene, is a treatise of 48 pages, listing 208 species, which have been recorded by the author, and 24 additional species which have been recorded there by others. The notations under each species give data on seasonal and relative abundance, nesting, migration and actual records of the rarer species. The author has done his work well and is to be congratulated upon having gathered so much valuable material and finally making it available in printed form.—A. F. G.

A VISIT TO A ROBIN ROOST

By A. C. WEBB

While rambling among the Charlotte Hills west of Richland Creek last Saturday (Feb. 19, 1916), three members of the T. O. S., Messrs. Ganier, Mayfield and the writer, observed flocks of Robins flying overhead in a westerly direction. The time being a little before sundown, we naturally supposed that these birds were on the way to their roosting place and that it was probably along the bank of the Cumberland River, some two or three miles distant.

It was agreed that at the first opportunity we would endeavor to locate and study this Robin roost. On the afternoon of the following Monday, the writer drove out the Charlotte Pike until he struck the "trail," which he easily followed by watching the numerous birds as they passed overhead. When the river was reached he found that instead of stopping there, as expected, the birds passed on over into Bell's Bend, and there was nothing to do except abandon the efforts to locate the roost for the day or be set across the river at Clee's Ferry, nearby, and follow further westward. By the time the ferry was crossed the sun was nearly set, and for the next few miles fast time was made over the good pike leading across a nearly level and very interesting stretch of country. After sundown, passing Robins became scarcer and finally ceased altogether. He drove on, knowing, however, that it would be impossible for him to return home that night, as the ferry boat had stopped crossing at sundown. He again came within sight of the river and was also pleased to see about a dozen Robins perched in a tree near the roadside. Upon his approach they pitched off toward the river a half mile or more away, which seemed to be bordered with a canebrake. He started to drive across the fields to see if this were true, and met a couple of plowboys returning from their work, who told him that the canebrakes were on both sides of the river, and that for the past two or three weeks thousands of Robins had been roosting in them. He was naturally pleased at having located the Robin roost at the first attempt, and his next thought was where he, himself, should "roost" that night after an inspection of the Robins' quarters.

Good luck was still with him. Inquiring of the boys, who lived in the nearby farmhouse, he was told that Mr. W. A. Jones, his old friend and neighbor of another community, had recently moved into it, and that the farm they were on belonged to him. Needless to state, both his horse and himself were soon comfortably housed and fed. After supper he and Mr. Jones took a lantern and went to the canebrakes. As they passed along their edges they could hear the fluttering of many pairs of wings as the frightened birds left their perches and flew into the interior. Around the edges they could not get close enough to see them clearly, but when they went into the midst of the canebrake themselves they had no more trouble in getting a good view of the Robins than one would have in observing a flock of chickens on the roost. Frequently three or four birds would fly from the cane, which was pressed aside in order to pass through. It was then easily understood why, in years gone by, it had been so easy (and how little like sport) to get a sackful of Robins by knocking them off their perches with a stick.

The writer's only regret was that he did not have his fellow members of the T. O. S. with him to share his enjoyment. He felt ashamed that he had not invited at least one to accompany him. The more he thought of it, the more selfish it appeared. Even after several hours of deliberation he at the present time has no better excuse than the time-worn one, that "he didn't mean to do it." He really did not when he left his office at 4 p. m., have any idea that he would locate the roost before he returned home. He intended to narrow the limit of territory in which it might be found, but circumstances over which he had no control forced him to go on and find it that night. At any rate, he made amends as best he could when two weeks later he had the pleasure of showing the great roost to four other students of bird life, Messrs. Mayfield and Merritt and Misses Hasslock and Petway.

Before daybreak next morning he was at the Robin roost again, not to disturb them, but to learn how Robins get up in the morning when they are not disturbed. As dawn approached, the birds began to chatter here and there among the canes and before he realized what it was, the swamp, the field, the river and the air were filled with one great sound coming from the throats of thousands of unseen songsters. It was not a song—it was ten thousand songs fused into one great shout of joy of life. It reminded him of the roar of some great cataract plunging down the steep sides of a Western mountain, but the deep undertones were not there. The notes of individual birds could not be heard except of those quite near. This sound lasted for fifteen or twenty minutes without change of pitch or volume, when suddenly, as if by signal, there sprang from every part of the canebrake thousands of Robins, each one as it left its perch giving a loud chattering call. As they launched themselves into the air they rose quickly, those from across the river being some two or three hundred feet high as they passed over, while those starting near me almost brushed my face. There was no circling about, no trial flights, no waiting for one another; when time to leave came they went at once.

They did not darken the sky; they brightened it. The sun was just rising above the Eastern hills and as they flew to meet it their red-brown breasts gleamed like burnished copper. Like a child, the writer screamed with delight at the sight. A swarm of bees which extends over a rod or two of space is an interesting sight, but is as nothing when compared with a swarm of Robins a mile or more across. Ten minutes after the first bird had left the canebrake the swamp was silent, except for the harsh calls of a pair of Blue Jays, the tremulous whinny of a Screech Owl, and the tattoo of a Red-headed Woodpecker on the dead limb of a sycamore. On his return home that morning he saw no Robins until he had recrossed the river, several miles to the eastward from the roost, the birds having apparently chosen to go long distances on their initial flight.

NASHVILLE, TENN., March, 1916.

(NOTE: While calling on Professor Webb recently and looking over his early notes, we found this old Mss., which we prevailed upon him to allow us to use.—Editors.)

RAPTORE AND WATER BIRD RECORDS FROM EAST TENN.

By S. A. OGDEN

For a number of years I have been keeping a record of the birds that have been brought to me to be mounted, and at the suggestion of the editors, the raptores and water birds are recorded below. The measurements should be of value for taxonomic purposes, especially where more than one form of a species is suspected of being present in this area. It is probable that a good percentage of the unusual birds that have been taken about Knoxville have passed through my hands. All birds mentioned were taken in East Tennessee, except where otherwise noted.

COMMON LOON, *Gavia immer immer.*
5-8-1924. From near Asheville, N. C., Female. Length 30", Wing 14¼", Tail 3½".
11-23-1932. Knox Co., Immature Male, L-30", W-14", T-3½".
DOUBLE-CRESTED CORMORANT, *Phalacrocorax auritus auritus.*
11-17-1931. Loudon Co., Female.
EASTERN LEAST BITTERN, *Ixobrychus exilis exilis.*
5-26-1932. Knox Co., Male, L-13", W-4½", T-1¾", Bill 1¾".
WOOD IBIS, *Mycteria americana.*
6-13-1932. Claiborne Co., near Cumberland Gap, Female, L-37", W-19", Bill-8".
AMERICAN MERGANSER, *Mergus merganser americanas.*
1-1-1925. Blount Co., two Males and one Female.
1-12-1926. Blount Co., Male, L-25½", W-11", T-5¾".
SHARP-SHINNED HAWK, *Accipiter velox.*
12-7-1932. Knox. Co., Male, L-11", W-6¾", T-5½", Spread 21".
COOPER'S HAWK, *Accipiter cooperi.*
12-5-1931. Knox Co., Female.
5-18-1925. Knox Co., Male, L-14½", W-10½", T-6¼".
EASTERN RED-TAILED HAWK, *Buteo borealis borealis.*
2-20-1925. Knox Co., Male L-19", W-14¼".
1-7-1925. Knox Co., L-20", W-15", T-9¼", Tarsus 4".
5-4-1932. Knox Co., Female L-22", W-16", T-9½", Spread 51".
11-22-1927. Anderson Co., Female, L-21", W-15", T-10".
12-7-1925. Knox Co., Female, L-21", W-15½", T-9".
NORTHERN RED-SHOULDERED HAWK, *Buteo lineatus lineatus.*
9-13-1924. Knox Co., L-21", W-15¾", T-10", Tarsus 4".
12-29-1931. Knox Co., L-20½", W-13½", T-9", Spread 40".
BROAD-WINGED HAWK, *Buteo platypterus platypterus.*
9-2-1932. White Co., L-15½", W-10¾", T-7".
GOLDEN EAGLE, *Aquila chrysaetos canadensis.*
10-23-1925. Morgan Co., near Wartburg, L-36½", W-24½", T-15", Tarsus 4½", Spread 84".
MARSH HAWK, *Circus hudsonius.*
10-14-1932. Knox Co., Female, L-20½", W-14¾", T-10", Spread 46½".
10-24-1932. Knox Co., Female, L-21", W-14¾", T-10¼", Spread 46½".
10-26-1925. Knox Co., Female, L-21", W-15½", T-10¼".
OSPREY, *Pandion haliaeetus carolinensis.*
4-12-1932. Loudon Co., L-23½", W-20", T-10", Spread 70".
BLACK-BELLIED PLOVER, *Squatarola squatarola.*
10-6-1932. Knox Co., L-11¾", W-7¾", T-2¾", Bill 1¼", Head 1¾".
LAUGHING GULL, *Larus atricilla.*
9-18-1932. Knox. Co., Female (immature), L-15½", W-11½", Bill 1¼", Tarsus 2".
BARN OWL, *Tyto alba pratincola.*
4-23-1932. Sevier Co.
6-30-1932. Jefferson Co., Female (immature), L-15½", W-13", T-5¾".
11-19-1925. Union Co., Female, L-14", W-13", T-5¾".
5-1-1924. Morgan Co., Female (immature), L-14¾", W-13¼", T-7½".
12-1-1932. Loudon Co., L-15¾", W-13", T-5½", Spread 44".
EASTERN SCREECH OWL, *Otus asio naevius.*
3-20-1925. Knox Co., (Red Phase), L-9", W-6¼", T-2¾".
10-29-1925. Knox Co., Female, L-8¾", W-6½", T-3¾".
1-18-1926. Knox Co., Female (Red phase).
GREAT HORNED OWL, *Bubo virginianus virginianus.*
9-23-32. Knox Co., Female, L-20½", W-15", T-9¼", Spread 52".
10-3-1932. Knox Co., L-22", W-15", T-9¼".
5-16-1924. Knox Co., Female, L-19½", W-14½", T-8".
12-29-1931. Jefferson Co., Female, L-22", W-15", T-9½", Spread 53".

6-18-1932. Grainger Co., Male (immature), L-20", W-14", T-9".
8-25-1932. Knox Co., L-21", W-14½".
NORTHERN BARRED OWL, *Strix varia varia.*
9-19-1932. Campbell Co., L-20", W-14", T-10".
1-3-1933. Sevier Co., L-18", W-13", T-9¼", Spread 44".
3-21-1932. Knox Co., L-20", W-13¾".
11-21-1925. Knox Co., L-18", W-13", T-9".
11-28-1925. Knox Co., Female, L-17½", W-14", T-9½", Spread 42".
KNOXVILLE, TENN., July, 1933.

THE ROUND TABLE

THE SEASON AT MEMPHIS: Trips to Horn Lake, Miss., and nearby Mud Lake, which lies partly in Tennessee, continued to yield interesting results, chiefly at Mud Lake. White Pelican, 19 on Sept. 24 and 13 on Oct. 1; Wood Ibis, 1 on the 24th and about 40 on Oct. 1; American Egret, from 35 to 125 each Sunday and 52 on Oct. 15 when last seen. No trip was made on Oct. 22. Little Blue Herons, 12 (Sept. 24), 70 (Oct. 1), and 12 (Oct. 8); Great Blue Heron (sp. ?), a few each trip, with 15 on Oct. 1; Double-crested Cormorant, 109 on Oct. 1, and 4, 7 and 1 the following weeks; Blue-winged Teal, 100 on Sept. 24, 300 on Oct. 1 and over 10 on the 8th. Wood Duck, 5 on Oct. 1, 120 on Oct. 8, 7 on the 14th, and more on Oct. 29, when over 6 males were seen, and many females and immature could not be distinguished among a group on the far shore, which included 12 to 60 Lesser Scaup, over 12 Pintail and more than 15 male Mallards (females not counted). The Scaup were also noticed on the 8th. While studying the ducks (Oct. 29), a flock of geese were heard and when overhead were seen to number about 60 Blue Geese, with 4 to 5 (Lesser) Snow Geese. Dr. Louis Leroy reported seeing Canada Geese up the river on Oct. 29. Several hunters have also seen them and Mallards and Scaup are fairly common since Nov. 16. Ducks are reported more common in the rice field section of Arkansas than near here, with warm weather holding other flocks up north. Other Mud Lake waterbird records include: Pectoral Sandpiper, 2, 1 and 2 on Sept. 24, Oct. 8 and 15, respectively; a few Spotted and Solitary Sandpipers on the same dates and 25 Greater (?) Yellowlegs leisurely feeding in 3 to 5 inches of water on Oct. 29. Over 49 Coots were seen Oct. 15. Birds of prey include Bald Eagle, 1 adult and 1 immature on Sept. 24, 1 adult on Oct. 8 and 2 adults and 1 immature on Sept. 24, 1 adult on Oct. 8 and 2 adults and 1 immature on Oct. 15. (Our only previous record was made here last fall.) Duck Hawk, 1 on Sept. 24, Oct. 8, and 2 on Oct. 15. A pair of Marsh Hawks were seen every trip, likewise on trips to other places and a Sharp-shin was seen Sept. 24 and Oct. 1st. An Osprey was seen Sept. 24 (Horn Lake), and 2 on Oct. 15.—A trip was made, Nov. 12, south between the Mississippi and White Rivers, in Arkansas. At Oneida we saw a White-crowned Sparrow (rare here), and two House Wrens. At Lakeview (Ark.), about 120 Mallards, small numbers of L. Scaup and an adult Bald Eagle were seen. At Snow Lake 120 Coots were seen. Turkey Vultures were observed in large numbers by Coffey and Turner on long drives in late November. Occurring singly, 90 were counted on one 60-mile trip. An American Goldeneye, recently killed, was found Nov. 18, by Earl Henry on a Mississippi River bar above town. On this trip he also noted 2 Greater Yellowlegs and a flock of 15 American Pipits. (Henry made our first local Pipit record when he collected two at the same place on December 10, 1932.) Our party saw our first Pipits at the Covington (Tenn.) airport Nov. 26, when about 60 flew up from almost under our feet. Repeated approaches finally gave us close-up views of two or three. Usually the flock took flight before we could find them, directly in front of us, at 5 to 15 feet. Shortly after leaving the airport, just north of the Hatchie River, we saw 7 Pipits alight in an old cotton field and checked our identification. About 20 others flew over as we started to leave. On Dec. 3 a flock of 80 of these birds and 4 Prairie Horned Larks were noted just east of Memphis. On Open Lake (west of Ripley), nothing of particular interest was noted except perhaps the large flocks of blackbirds. These consisted of a few Cowbirds and Rusty Blackbirds, over 350 Redwings, more than 400 Bronzed Grackles, more than 600 Starlings in one flock, and several smaller mixed flocks of Starlings and Grackles were also seen. A flock of several hundred Crows were noted moving in an irregular line from Ripley westward, apparently to a roost along the Mississippi. On Oct. 1, McCamey and Powell noted about 3,000 Tree Swallows along the shore of North Lake, Tennessee, south of Memphis; they had alighted in willows which were bending under their weight. On Oct. 10 a group of us trapped approximately 2,000 Chimney Swifts from a flue on top of the Masonic Temple. We banded 517 of them and half of the balance were examined for foreign bands. Of these we found 3 that we learned later had been applied September, 1931, at Quincy, Ill., and 1 at Clayton, Ill. (date not given). An Anhinga was wounded Sept. 20 near Forest City, Ark., and is now in the Memphis zoo. The Barn Owl, which is quite rare here, is well known to be erratic about its time of nesting. On Nov. 22, a tree was felled in the northeastern outskirts of town and an adult Barn Owl flew from its nest in a cavity. Four hissing young ones, which I judged to be about 10 days old, were found in the hollow, and two are now in the local zoo.—BEN B. COFFEE, Memphis.

FALL NOTES FROM NASHVILLE: On October 28, the writer trapped at his banding station a male Cardinal on which he found a band he had placed Feb. 12, 1924, making this bird at least ten and one-half years old. More complete data on this bird is being published in the current *Wilson Bulletin.* Chimney Swifts this year, selected as their big October roost a chimney in the downtown retail district, using the relatively small chimney at 213 Third Avenue, North, where I estimated that 10,000 entered on the evening of October 11. A few days later they had abandoned this chimney and were reported by Miss Hollinger as using an air shaft at Ward-Belmont College, leaving there after the night of October 16. No more were seen. In 1930 their latest date was October 18. On November 26, Mayfield and the writer spent the day afield in Robertson County, north of Springfield, and the trip was duplicated on November 30 with Monk. The 26th was a cold, blustery day and the 30th was balmy. Our list for the first date was 37 species and to those were added 10 more on the 30th. Raptores noted (the highest number for one day) were Turkey Vultures, 20; Marsh Hawk, 6; Sparrow Hawk, 8; Red Tailed Hawk, 1; Cooper's Hawk, 2; Great Horned Owl, 1, and Screech Owl, 1. Two Migrant Shrikes were noted, only one flock of Robins, Starlings were everywhere, White-crowned Sparrows were particularly common near the Kentucky line, but no Tree Sparrows could be found. A Barn Owl was shot on November 30, near Lebanon, by a hunter, and shown to me. Marsh Hawks have been more plentiful than usual this fall. Transient Mockingbirds were also unusually abundant in late August, and through September. Flocks of wild geese were reported over Nashville by members on October 26, 27 and 30. On the night of the 29th, in Macon County, a flock were circling over the town lights of Red Boiling Springs, when some one shot into them and a number came to the ground, including 7 uninjured. There were 1 im. Blue Goose, 3 Lesser Snow and 3 immature of apparently the latter form. The birds were confiscated by

State Game Warden Headden. The writer assisted him later in releasing them in Radnor Lake, where it is hoped they will remain all winter and return in future years.—A. F, GANIER, Nashville,

A CARDINAL EPISODE: It's going to take me five minutes to write the following, but it took two hours for it to happen. Within six feet of my veranda chair there is a feeding station always filled with sunflower seeds. A mother Cardinal and her youngest son stood on the edge of the station. Twice the mother cracked seeds and fed them to the youngster, who in response fluttered and quivered and begged for more. From outward appearances the mother was indifferent to its cries, for she paid him no attention when for ten minutes she tossed seeds and husks around or stretched a wing or leg to its full length. Soon the little one stopped crying for food and stood quietly in a cleared place on the floor of the station. At this time the mother was industriously cracking seeds and swallowing the kernels; she had swallowed ten when out of one eye she saw her son pick up a seed by himself, but he didn't know what to do with in. He held it a second, then dropped it like a hot potato. In a few seconds he ventured to pick up another, but dropped that one too, then another and another, but always they were dropped without being cracked. This continued for about eight minutes, then the mother picked out a seed, cracked it and put the kernel in the strong little bill. That started another session of quivering and begging. This time the mother answered by cracking a seed, but instead of putting the kernel in the bird's mouth she let it fall to the cleared place on the floor. Whether that was accident or design, only the mother herself knows. That kernel proved tempting enough to make the son eye it for a second, stretch its slim neck toward it, pick it up, drop it, pick it up again and swallow it.

The mother seemed so well pleased with the progress of her pupil that she flew to a twig two feet away, where she started preening her wing feathers. For the next thirty minutes she took short flights of five or six feet around the station. Left alone with the seeds a half-inch deep around him, the young bird settled down to a nap, but a sharp note from the mother brought him to his feet. She returned and picked out a seed and put it unopened in the youngster's mouth and followed it by two sharp scolding notes—at least, they sounded like scolding to me. All the son did was to shake his head as if trying to dislodge something distasteful, at the same time throwing the seed out of the station. Again the mother left him alone. In five minutes she came back and again started her lesson from the very beginning. But this time she was careful to turn the seed over in her own bill, to get it in position for cracking before she put it in the little one's mouth. The first and second seeds failed to crack, but the fourth brought success, though the kernel was dropped twice before it was in the proper swallowing position. Evidently Cardinals like their kernels as well as their worms to go down head first. The patience this mother showed in teaching her young to eat was justified when he became expert enough to crack and swallow every seed he picked up and after a bit, when apparently satiated, he in turn cracked and fed a kernel to his mother, who ate it with apparent relish, though she had already had twenty-two seeds in the two-hour lesson.—MRS. ANA COCHRAN, Nashville,

WOOD IBIS AT CUMBERLAND GAP: On June 13th, 1932, a flock of five Wood Ibis (*Mycteria Americana*) visited Cumberland Gap in Claiborne Co., forty miles north of here. They were fired upon and one of them was shot. It was sent to me to be mounted, and is now in the possession of Mr. Brockway Crouch at his florist shop in Knoxville. This is our first East Tennessee record for this Gulf Coast species, and is of particular interest, since northward wanderings of this Ibis have usually been confined to late summer.—S. A, OGDEN, Knoxville.

WILSON'S SNIPE IN NORTHEAST TENNESSEE: One of the very happy observations of the spring season of 1933, in this region, was the appearance of the Wilson's Snipe in greatly increased numbers. The first observation was on March 12. They could be seen any day in their favorite haunt, which was an artificial lake of about two acres in extent, backed by an equal area of swamp, mud flats and heavy growth of rushes and swamp grasses. The average number flushed on a trip through this terrain was usually about twenty. Evidently one flock was living constantly in this swampy feeding ground.

As the weeks of the period of the spring migration rolled along they continued to stay until, as we were looking with critical eyes for the nesting birds, we began to hope against hope that they might nest here. On May 21st they were still apparently contented with their surroundings. On that date we found nesting: Bluebird, Catbird, Mockingbird, Ovenbird, Phoebe, Robin, Field Sparrow, Grasshopper Sparrow, Barn Swallow, Roughwing Swallow, Brown Thrasher, Kentucky Warbler and Starling. With so many birds nesting, is it any wonder that we suspected the possibility of finding a nest of this Snipe? The following week we prepared to search for the nests, but the birds were gone and appeared no more. They had departed for their northern nesting grounds.

We have noted the tendency among bird observers to suspect breeding where migrants linger long in their winter or transitory homes. Such cases should be most carefully and critically observed, and no conclusions drawn unless nests are actually found.—BRUCE P. TYLER *and* ROBERT B. LYLE, Johnson City.

A SWALLOW-TAILED KITE (*Elanoides forficatus*) was killed a few miles south of Nashville, near the Harpeth River on Sept. 25, 1933. It was brought to the State Museum and compared with the mounted specimen there, by Miss Walker, who is in charge, and found to be identical. The party who brought it in took it away, saying he would have a taxidermist mount it, but the specimen has not been located. The bird now in the museum was taken on Aug. 15, 1929, near Linton, on South Harpeth River, about 18 miles southwest of Nashville, and has been previously recorded in Vol. 1 of *The Migrant*. These two specimens constitute the only records for Tennessee over a long period of years. Since there is no known breeding grounds of this now very rare bird north of Tennessee, it is quite possible that they had wandered northward from Florida, where quite a number of them are still to be found in summer. It is regrettable that these beautiful kites seem destined to early extinction for no other reason than man's readiness to kill any unusual creature.—A. F. GANIER, Nashville.

NOTES FROM RADNOR LAKE: The usual population of wintering ducks are here and has remained about the same throughout November, with Mallards, Lesser Scaup, Ringneck, Black Ducks and Coots composing the bulk, two or three hundred present. The following have been noted also: November 4, 15 Horned Grebes; November 5, 3 Common Loons, 5 Hooded Mergansers and 2 Green-winged Teals; November 11, 1 Golden-eye, 1 Gadwall, 3 Redheads, 1 Bufflehead and 1 Baldpate; November 26, 2 Pintails, 5 Baldpates and 3 Canvasbacks.—GEORGE B. WOODRING, Nashville.

* * *

The Migrant is sent to all members not in arrears for dues. Active membership is one dollar per year; associate membership is sixty cents. Subscription to non-members, sixty cents. All articles , correspondence and dues should be sent to the Editor-Treasurer, G. B. Woodring, 1414 Stratton Ave., Nashville.

NASHVILLE MEETINGS: The annual Fall Field Day was held at South Harpeth School on October 22, and was attended with the usual interest. From Knoxville we were honored by the presence of Mr. and Mrs. Ijams, Mr. and Mrs. Bamberg and Mr. William Johnson. On Sunday afternoon, November 5, our group was entertained by our fellow member, Mr. Leslie Cheek, at his beautiful country estate, "Cheekwood." The meeting of November 13 was notable in having as our speaker Dr. Gordon Wilson of Bowling Green, Ky., past-president of the Kentucky Ornithological Society. The annual Christmas census will be taken on Sunday, December 24. Meetings for the balance of the winter will be held bi-weekly, as usual, on January 8, 22, February 4, 18, March 4, 18, etc.

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THE MIGRANT

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DEVOTED TO TENNESSEE BIRDS

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1934

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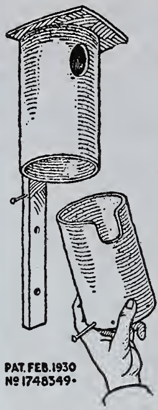

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AUTOMOBILE AND COMPLETE SURETY PROTECTION

THE MIGRANT

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NESTING RECORDS OF BIRDS AT ATHENS, TENN.

By H. P. IJAMS and L. A. HOFFERBERT.

During the past winter the writers visited Athens and there examined the collection of North American birds' eggs gathered by Mr. Richard Gettys and presented by his family after his death to the Tennessee Wesleyan College. This article therefore represents a brief summary of the work of this active field ornithologist who was born August 30, 1876, and died Oct. 10, 1910. aged 34. His record books, which we have examined, begin in 1897 and end with 1909, but during the last three years of that time he had become less active than at first. His interest was developed during the period when the collecting of birds' eggs was widespread and the most popular method of bird study; toward this activity he directed an immense amount of talent and energy and was afield with the birds during all his leisure hours. In the books referred to, there are records of 585 nests containing eggs found near Athens, no less than 70 species being represented. Of these, 510 were found by Mr. Gettys and 70 by his younger brother, Charles. His collection of eggs was gathered and kept in sets or clutches, each species being represented by several sets to show variations. Additional sets, not needed for his own collection, were exchanged with collectors in other parts of the country, and in this way the eggs of about 155 species were acquired of birds chiefly not native to Tennessee. There were a few birds' skins in the cabinets, but none of unusual species. The cabinet also contains about 25 nests.

Mr. Gettys kept careful notes on the spring and fall migration of birds from 1902 to 1909, and made regular reports from his station to the U. S. Biological Survey. In the series of papers on migration which ran through Bird-lore for many years, his notes were often quoted. As far as can be learned, he never wrote upon his experiences for the bird journals and his nesting records, therefore here find themselves in print for the first time. As well as can be gathered from his data, his field work did not extend more than a few miles from Athens. This town, the seat of McMinn County, lies midway between Knoxville and Chattanooga, in the eastern part of the Tennessee River valley, and in an area chiefly occupied by farm lands. Much of the high ground is covered by forested lands grown with pine, oak, hickory, sweetgum, etc. The elevation of the country about the town varies from 800 to 1,200 feet above sea level, and consists of a succession of narrow ridges and valleys running in a southwesterly direction.

Attention is especially called to the nesting record of Swainson's Warbler (*Limnothlypis swainsoni*) and Red-cockaded Woodpecker (*Dryobates borealis*), these being the first nesting records of these species in the State. Ruby-throated Hummingbird nests were apparently his "pet hobby," and it is doubtful if any other bird student ever lived who equaled his record of finding 62 nests with eggs of this species. The names used in this list are those adopted by the American Ornithological Union in the 1931 Check

List, and therein may be found the corresponding scientific name if desired. The sub-species shown are those believed to be the breeding form at Athens. The data given below are necessarily much condensed from the original, due to lack of space. It should be of value, however, to present the complete local list, together with the number of nests found of each species as an index to their relative abundance, the dates on which the nests were found, etc. In the rarer species more complete data is given. The stage of incubation is given as fresh (fr), begun, and advanced (adv). The abbreviation "15′ up and 8′ out" means that the nest was 15 feet above the ground and 8 feet out from the center of the tree. The letters "E" or "N" prefixed to names means Eastern or Northern.

E. GREEN HERON, 6 nests. Apr 30, May 9, 9, 27, June 2, 19. Eggs 4, 6, 4, 3, 5, 4.
TURKEY VULTURE, 30 nests. Each contained 2 eggs. Dates found, April 12, 14, 16, 17 (three), 20, 22, 24, 25, 26 (three), 28 (three), 29, 30, May 1, 2 (three), 6, 8, 10 (two), 14, 15, 19 and 26. 14 were in hollow logs, 8 in stumps and 8 in hollow trees. On four occasions it was necessary to remove the parent bird by hand from the eggs.
COOPERS HAWK, 3 nests. May 6, 5e, fr; Apr 24, 4e, fr; Apr 25, 4e, fr.
E. RED-TAILED HAWK, 3 nests. Mar 27, 2e, incub slight, nest in large pine 50′ up. March 25, 2e, incub adv., nest 70′ up. March 26, 2e, incub adv., nest 70′ up in a chestnut tree.
BOB-WHITE, 10 nests. Dates, May 14, June 8, 20, 29, July 8, 15, 16, 24, 26 and 27.
KILDEER, 1 nest. May 28, 3e, incub begun, on ground in corn field.
E. MOURNING DOVE, 21 nests. Earliest dates, Mar 28, 31, Apr 3, 22, 26, 28.....
YELLOW-BILLED CUCKOO, 1 nest. May 29, 2e, incub begun, 10′ up in willow.
E. SCREECH OWL, 6 nests. April 11, 14, 24, 25, May 2, 4. Eggs 4, 2, 4, 5, 3, 3.
GREAT HORNED OWL, 2 nests. Feb 2, 2 eggs, incub begun, eggs laid on rotten wood in hollow black gum. "Bird very bold, attacking me viciously as I climbed the tree." Feb 5, 4 eggs, incub 10 days, cavity in side of a white oak, entrance 8″ in diam. and cavity 18″ diameter.
CHUCK-WILLS-WIDOW, 3 nests. May 12, 1 egg. May 16, 2 eggs. May 28, 2 eggs.
E. NIGHTHAWK, 7 nests. May 15, 21, 23, June 1, 6, 17, 23. Two eggs in each.
CHIMNEY SWIFT, 1 nest. June 10, 2e, incub begun, 6′ down in chimney.
RUBY-THROATED HUMMINGBIRD, 61 nests, each containing 2 eggs. Dates on which nests were found, May 4, 7 (three), 10 (two), 12 (four), 14 (four), 16 (four), 17 (three), 18 (three), 19 (four), 20 (five), 21 (six), 22 (two), 23, 24 (two), 25 (three), 26, 27, 28 (two), 29, June 2 (two), 5, 14 (two), 19, 21 and 26 (two). The later nests replaced sets collected during May. Species of tree selected for nest; pine 15, oak 12, white oak 3, hickory 11, sweet gum 11, chestnut 3, poplar 2, sycamore 1, not named 3. Height of nest above ground; 8′ (two), 10′ (three), 12′ (three), 15′ (twenty-three), 18′ (five), 20′ (nine), 25′ (five), 30′ (three), 35′ (three), not given, four. Description of typical nest; nest compactly built of vegetable down and sedges, covered with lichens and lined with down, saddled on horizontal limb of small pine, 15′ up and 5′ out on limb.
N. FLICKER, 7 nests. May 1, 1, 3, 5, 11 and 16. Eggs 4, 6, 5, 7, 6 and 8.
E. HAIRY WOODPECKER, 1 nest. April 25, 3 eggs, incub begun, 20′ up in gum.
RED-HEADED WOODPECKER, 1 nest. May 15, 5 eggs, fresh, in oak tree 50′ up.
N. DOWNY WOODPECKER, 4 nests. April 27, 27, May 20 and 20. Eggs 5, 4, 4, 4.
RED-COCKADED WOODPECKER, 1 nest. May 3, 1901, "found a nest of this species containing young. Cavity pecked in branch of living oak, 40′ up."
E. KINGBIRD, 7 nests. May 20, 21, 21, 30, 30, Jun 5, 5, 18. Eggs 4, 5, 3, 3, 3, 5, 2.
N. CRESTED FLYCATCHER, 3 nests. May 20, May 27, Jun 3. 5 eggs in each.
EASTERN PHOEBE, 7 nests: Apr 6, 23, 30, May 21, 23, June 8. Five eggs in each.
ACADIAN FLYCATCHER, 7 nests. May 25, 26, 28, 30, Jun 4, 7. 3 eggs in each.
E. WOOD PEWEE, 17 nests. May 20, 22, 26, 28, 30, 31, Jun 1, 4, 5, 6, 7 (two), 10, 12, 14, 21 (two) and July 16. Each contained 3 eggs. In oak or pine chiefly.
ROUGH-WINGED SWALLOW, 3 nests. May 12, 4 eggs. May 26, 6 eggs. May 31, 6 eggs.

BARN SWALLOW, 3 nests. May 11, 4 eggs. May 11, 5 eggs. Jun 1, 4 eggs.
PURPLE MARTIN, 1 nest. June 12, 5 eggs, fresh, in gourd hung on pole.
NORTHERN BLUE JAY, 16 nests. Earliest, Apr 10, 12, 18, 25 (four), 28, ----
EASTERN CROW, 12 nests. Earliest, Apr 1, 2, 3, 5 (three), 8, 9, (two), 10----
CAROLINA CHICKADEE, 24 nests. Earliest, Apr 12, 17, 19, 21, 22, 23, ----
TUFTED TITMOUSE, 5 nests. May 2, 8, 6, 30, Jun 7. Eggs 7, 5, 6, 5, and 3.
BEWICKS WREN, 7 nests. April 12, 15, 19, 28, 28, 29. Eggs 7, 7, 7, 4, 4, 3.
CAROLINA WREN, 9 nests. April 2, 6, 24, May 2, 10, 10, June 2, 13. Eggs 4, 5.
E. MOCKINGBIRD, 4 nests. May 10, June 8, 11 and 17, each with 4 eggs.
CATBIRD, 8 nests. May 12, 15, 18, 21, 21, 22, 24 and 28. Eggs 3 or 4.
BROWN THRASHER, 7 nests. Apr 29, May 2, 10, 14, 15, Jun 7, 16. Eggs 4 or 5.
SOUTHERN ROBIN, 6 nests. Apr 8, 9, 24, 25, 28, May 5, each with 4 eggs.
WOOD THRUSH, 12 nests. May 7, 8, 9, 10 (three), 13, 18 (two), 22 and 25.
EASTERN BLUEBIRD, 17 nests. Earliest, Mar 30, 24, 28, Apr 4, 5 (two), 6, 15----
BLUE-GRAY GNATCATCHER, 24 nests. April 28, May 2, 6, 7 (two), 8, 10 (two), 11 (three), 12, 14, 16, 18 (two), 20 (three), 21, 24, Jun 1 and 20. 5 eggs in most nests.
CEDAR WAXWING, 1 nest. June 28, 5 eggs, fresh. On limb of pine, 20′ up.
WHITE-EYED VIREO, 7 nests. May 13, 18, 19, 20, 21, June 8, Eggs 3, 4 and 5.
YELLOW-THROATED VIREO, 2 nests. May 13, 4 eggs, in pine. May 11, 5 eggs, fresh.
RED-EYED VIREO, 14 nests. May 14, 16 (two), 17, 18, 20, 24 (three)----
BLACK-AND-WHITE WARBLER, 8 nests. May 1, 4 eggs. May 1, 5 eggs. May 6, 4 eggs, May 6, 5 eggs. May 8, 4 eggs. May 15, 4 eggs. May 20, 3 eggs and May 26.
PROTHONOTARY WARBLER, no nests. "A tolerably common summer resident."
SWAINSONS WARBLER, 1 nest. "May 21, 1902, three eggs, incubation fresh, marked ⅓. One mile south of Athens near an old pond in some low wet woods. Nest made of leaves, shreds of bark, weed stems, grass and a few pine needles lined with hair. Built in a small oak bush, four feet above the ground."
N. PARULA WARBLER, one nest. May 28, 1904, 4 eggs, incubation begun. "Nest a beautiful sack shaped structure made of long green moss, lined with fine grasses. Hung under a 1″ dead oak limb and attached to the moss growing from same. About 45′ up and 3′ out. (The "moss" referred to has been identified by Dr. L. R. Hesler as a species of Evernia, one of the lichens closely related to Usnea. Ed)
CERULEAN WARBLER, 1 nest. His notes say "Found nest of Cerulean Warbler on June 5, 1904." Presumably it held young.
YELLOW-THROATED WARBLER, 5 nests. April 25, 4 eggs, incub begun. May 5, 4 eggs, fresh. May 6, 4 eggs, incub advanced. May 12, 4 eggs, incub begun. May 21, 4 eggs, fresh. All in pine trees, 35 to 40′ up. Typical nest description; "a very compact structure made of strips of bark, fine grasses and bits of life everlasting, lined with hair and a few feathers."
N. PINE WARBLER, 7 nests. April 6, 4 eggs, incub adv., nest 15′ up. April 10, 4 eggs, incub begun, 48′ up. April 14, 4 eggs, incub begun, 55′ up. April 16, 3 eggs, incub begun, 50′ up. April 17, 4 eggs, fresh, 25′ up. April 18, 4 eggs, incub begun, 30′ up, May 7, 2 eggs, incub begun, 20′ up. All nests in pine trees. "Compactly built of bark shreds, fine grass and pine needles, lined with hair, some vegetable down and a few cardinal feathers."
N. PRAIRIE WARBLER, 5 nests. May 13, 13, 20, 23, June 12. Eggs 4, 3, 4, 4, 3.
OVENBIRD, 13 nests. Dates, May 3, 6, 7, 8, 10, 12, 12, 12, 13, 15, 15, 22. Eggs, 5, 5, 5, 4, 3, 5, 5, 5, 4, 3, 5, 4.
LOUISIANA WATER THRUSH, 20 nests. April 13, 16, 20, 21, 21, 22, 22, 25, 26. 28, 29, 29, May 4, 5, 6, 9, 10, 12, 18 and 20. Eggs 3, 4 and 18 sets of 5.
KENTUCKY WARBLER, 6 nests. May 10, 16, 16, 21, 22, June 21. Eggs 5, 4, 4, 5, 4, 3.
MARYLAND YELLOWTHROAT, 4 nests. May 15, 27, June 3, 27. Eggs 5, 4, 3, 4.
YELLOW-BREASTED CHAT, 9 nests. May 15, 20, 23, 24 (two), 27 (three).
ENGLISH SPARROW, 2 nests. Apr 28, 5 eggs, fr. May 5, 5 eggs, fr.
EASTERN MEADOWLARK, 5 nests. May 10, 15, 25, Jun 15, 16. Eggs 5, 5, 4, 4, 5.
EASTERN RED-WING, 3 nests. May 12, 12 and 19. Eggs 4, 3 and 4.

ORCHARD ORIOLE, 8 nests. May 8, 15 (two), 17 (two), 20 (two), 24.
BALTIMORE ORIOLE, 4 nests. May 10, 20, 20 and 30. Eggs 3, 4, 4 and 5.
PURPLE GRACKLE, 13 nests. May 8, 9 (five), 13 (four), 20 (two), 25.
SUMMER TANAGER, 10 nests. May 11, 15, 18, 19, 22, 26, Jun 6, 9.
EASTERN CARDINAL, 11 nests. Earliest, Apr 28, May 4, 7, 11, 13----
INDIGO BUNTING, 5 nests. May 19, 24, Jun 2, 17, July 20, each with 3 eggs.
RED-EYED TOWHEE, 1 nest. May 11, 3 eggs, fr, in bunch of sedge grass.
E. GRASSHOPPER SPARROW, 9 nests. May 15, 22, 24, 25, 28, June 6, 22, July 2 and 19. Eggs in each 3, 5, 5, 4, 4, 4, 4, 3 and 3.
BACHMANS SPARROW, 2 nests. May 24, 5 eggs, incub begun, nest of grass on ground in old field. June 7, 4 eggs, fresh, nest in old sedge field.
E. CHIPPING SPARROW, 8 nests. May 8, 9 (three), 13 (two), Jun 6 and 8.
E. FIELD SPARROW, 14 nests. Earliest, May 1, 3, 4, 7, 7, 9, 10, 10----
KNOXVILLE, TENN.

* * *

A WOODCOCK'S NEST

By CYNTHIA C. COUNCE, M. D.

It was one of those perfect days in early March when an irresistible call of the outdoors led me far into the Hardin County hills. The tall and stately pines kept beckoning me farther and farther for on this day the wooded hills, with their fragrant pines. were never more beautiful. I was well into a pine forest before my footsteps began to slacken, and I paused to note everywhere about the signs of approaching spring. The spirit of the woods had enraptured my whole being and I was only conscious of my near surroundings when suddenly the spell was broken by the sudden flight and call of a Pileated Woodpecker. As he flew by I observed with interest his large size and regal flight. I rambled down through mixed open woods and on through sedge fields to where the land rolled gently into damp and moist lowlands along a sluggish stream. Keeping a lookout for birds along the way, I was greeted here and there by my feathered friends as they went bobbing up over the fallen brush or mounted a limb to greet me. Suddenly, as I scanned the ground ahead of me, I saw a beautiful Woodcock sitting on her nest.

Observing this handsome, dignified and aristocratic bird during the days that followed brought me many thrills and genuine pleasure not soon to be forgotten. Nor did she seem to mind my intrusion, for her disposition was gentle and trusting. With a pair of field glasses I studied the harmonious blending of browns and black in her plumage, her quaint eyes, set near the top of her head, and the long. sensitive bill with which she bores holes in the mud in search of worms. On the following day, no field glasses were needed, for one could get so close to her nest that one could lay a hand upon her head. My next visit found her off feeding, so I took the opportunity to closely examine the nest. It was built upon the ground in a rather open spot in the swampy bottom. It was made of a few sticks and dry leaves and contained four large pear-shaped eggs of a buffy color, spotted with shades of reddish brown.

The nest was visited at regular intervals for over two weeks, and seemingly a companionship that became mutual was formed. On the morning of March 29, at about nine o'clock, the bird was found off the nest, feeding near the water by probing in the wet ground. I slowly approached the nest and on examining the eggs carefully discovered new markings that showed the time of hatching was near at hand. Sensing this to be a gala day for us both, I lingered nearby, penetrating into many attractive spots to while away the time. Three hours later I returned to the Woodcock's nest and observed that the mother bird was upon it and showed restlessness by moving around and changing positions. Soon there appeared two beautiful little chicks, hobbling along around the sides of the mother and with seemingly more bill than they could carry. They were buffy in color, with rich brown markings upon them. Presently a third chick came into view. Hoping to secure photographs, I went for my kodak, but on returning in about half an hour, I found the parent and her little ones were gone. Apparently she had carried them away, for they could not be found nearby, and they were surely too weak to have made their own way*

After this pleasant introduction to the nesting of the Woodcock it is my hope that often again may I hear them near this lowland, sounding their love notes and indulging in the bounding flights and strange antics of courtship that are peculiar to this odd nocturnal bird.

Counce, Hardin Co., Tenn.

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*Mr. A. C. Bent, in his *Life Histories of North American Birds*, quotes accounts by reliable observers who had witnessed the carrying off of Woodcock chicks by the parent. In each case the old bird held the chick against her body with feet and legs and flew only a short distance. Since the period of incubation is 21 days, these birds began to set about March 8.—Eds.

* * *

DERIVATIONS OF ORNITHOLOGICAL NOMENCLATURE

By BRUCE P. TYLER.

FOREWORD: I have long known that my good friend, Bruce P. Tyler, is an authority on birds. I have had the pleasure of accompanying him on some of his bird walks and have succeeded better in catching some of his enthusiasm than I have in acquiring much of his bird lore.

In the present article he goes afield along some bypaths that lie closer to my own limited range of knowledge. It was with genuine delight that I read the manuscript of this article and found many refreshing rays of light thrown upon the technical nomenclature of his chosen subject, Ornithology, through the lens of his clear and simple exposition of ancient Latin and Greek terminologies. Those who have felt that dead languages should be allowed to stay dead will find a real breath of life in this bit of scholarly research. Incidentally, also, it seems to make our common birds a little more interesting than ever.—C. Hodges Mathes.

A study of the technical names in any science often reveals shades of meaning not shown in the common names, and aids one to better understand and to remember them.

For instance, in the June Migrant I reported the appearance of the Clay Colored Sparrow in Tennessee. So important a find and the investigations necessary to its confirmation led into technical terms. The scientific name of this Sparrow is *Spizella pallada,* which is derived from the Latin *spiza,* meaning a finch, *ella,* the diminutive, and *pallada,* meaning pale; therefore the Clay-colored Sparrow, technically named, is the Pale Little Finch. As there are known clays of every color clay colored does not say much to the interested ornithologist, but Pale Little Finch names the bird in a much more intelligent and specific manner.

Such studies as the above have led me to look into the etymologies of many bird names, and with the hope that the readers of The Migrant may be interested, I am stating the ideas that I have gleaned from a study of the names of the nineteen orders of our Eastern birds. The examples cited are chosen from our Northeastern Tennessee avifauna. Locally, we have sixteen of the orders represented. The birds of the entire world are embraced in twenty-seven orders. I am indebted to my friend, C. Hodge

Mathes, for many helpful suggestions, and for checking my long neglected Greek and Latin.

Order 1. **Gaviformes**—Loons. The scientific name is derived from the Latin, *Gavia*, meaning a sea mew or a sea gull, and *forma*, meaning in the form of. Hence, an order of birds resembling the sea mew. The Common Loon is our representative of this order.

Order 2. **Colymbiformes**—Grebes. The name is derived from the Greek *kolymbos*, meaning a sea bird. The Greek verb *kolymbao* means to plunge headlong or dive, and the noun *kolymbos* means a diver, or a diving bird. Hence. in this order we have pre-eminently the diving birds of the sea. With us the order is represented by the Pied-billed Grebe.

Order 3. **Procellariiformes.** Tube-nose swimmers, albatrosses, petrels, etc. The name is derived from the Latin *procella*, a storm bird—birds of the storm. Pro, meaning forward, and *cella*, to urge. Hence, birds that dash forward or are driven forward by the storm, or, more to the point, that fly as if they were so driven. Our mountain terrain is not to the liking of these birds so we have none of this order with us.

Order 4. **Pelicaniformes.** Toto palmate swimmers. The name is derived from the Greek *pelikanos*, meaning either a woodpecker or a water bird of the pelican kind. Now the Greek word *pelikan* means to hew with an axe, so the appropriateness to the woodpecker is quite clear, but where does one glean the idea of the pelican? Likely in the action of the huge bill, which hews all before it, even as an axe. Northeast Tennessee cannot boast of the presence of any pelicans.

Order 5. **Ciconiiformes.** Long-legged wading birds. The name of this order is derived from the Latin *ciconia*, meaning a stork. Our best example is the Great Blue Heron.

Order 6. **Anseriformes.** Ducks, geese and screamers. The Latin words *anser*, meaning a goose, and *forma*, in the form of, show the derivation of the name of this order. The root meaning of the word *anser*, as also of the Sanskrit *hansa*, the Greek *chen*, and the Germanic *gans*, is derived from the common Indo-European root word *gha*, meaning to hiss with open mouth. So here we have gooselike birds, including the various ducks. Most prominently the Mallard Duck represents this order with us.

Order 7. **Falconiformes.** Vultures and diurnal birds of prey. The name is derived from the Latin *falx, falcis*, meaning a sickle or scythe, named from the curiously curved talons which resemble the form of a sickle. This order is represented by the vultures, the Duck Hawk and the other birds of prey.

Order 8. **Galliformes.** Gallinaceous birds. The name is derived from the Latin *gallina*, a hen. Hence, here we have the henlike birds. The Indo-European root *gar* means to shout or cry. Hence, to srow—the cock, the shouting bird. With us the quail or Bob-white and the Ruffed Grouse are common representatives of the order.

Order 9. **Gruiformes.** Cranes and rails. The name is derived from the Latin *grus, gruis*, meaning a crane. This is the order of the cranelike birds. I have only one record of the Sora Rail, which, as far as my observations go, is the only representative of this order dwelling in or visiting this territory.

Order 10. **Charadriiformes**—Shore birds. Plovers, gulls, etc. The name is derived from the Latin *charadrius*, meaning a yellowish bird, or the Greek *Charadrios*, meaning cleft, or the verb *charasse*, to cut by water running into the sea. Hence, yellowish birds dwelling in the clefts of the rocks by the sea. Our members of this order are pre-eminently the Killdeer, also the Solitary and Spotted Sandpiper.

Order 11. **Columbaformes**—Doves. The name is derived from the Latin *columba*, meaning a dove. The Mourning Dove is the best example.

Order 12. **Psittaciformes**—Parrots, etc. The name is derived from the Latin *psittacus,* a parrot. So here we have an order of the parrotlike birds. Tennessee once had a representative of this order, the Louisiana Paroquet, now extinct, due to the labors of over-zealous sportsmen (so-called), the ancient style of the milliners' art, professional bird catchers and wrathful farmers unwilling to share a bit of fruit with them. Flocks of this bird were reported by Wilson in Tennessee in 1810. The last observation was in 1904, in Florida.

Order 13. **Cuculiformes.** The Cuckoos. The name is derived from the Latin *cuculus,* a cuckoo. The Latin is derived from the Greek word *kokkys,* so called from the imitation of the bird's cry. One of the earliest references to this bird is in "Works and Days," the earliest of all known treatises for farmers, written by the Greek poet Hesiod about the close of the eighth century B. C., in which the cuckoo is mentioned as among the harbingers of Spring. Our most common representative is the Yellow-billed Cuckoo.

Order 14. **Strigiformes**—Owls. The name is derived from the Latin *strix, strigis,* meaning a screech owl. The Greek word *strix* means a night bird and is related to *syrinx,* a piercing cry. Hence, the owl, the night bird with the piercing cry. As the name indicates, the screech owl is our most conspicuous member of this order.

Order 15. **Caprimulgiformes**—Goatsuckers, such as Whip-poor-wills and Nighthawks. The name is derived from the Latin *caprimulgus,* meaning a goatsucker. *Caper,* a goat, and *mulgeo,* to milk. The members of this order are largely nocturnal and were formerly supposed to milk goats and other animals at night, likely because, being insectivorous they sought the proximity of cattle and goats on account of the increased supply of natural food, a greater number of insects usually being found in such locality. Our representative of this order is the Whip-poor-will, or the Nighthawk, the latter being more common.

Order 16.—**Micropodiformes.** Swifts and Hummingbirds. The name evidently refers to the feet. *Micro,* small, and *pod,* a foot. The birds with small feet. How enlightening is the name—constantly on the wing, the feet of these birds are used but little, and hence are undeveloped. Our representatives are the Ruby-throated Hummer and the Chimney Swift.

Order 17. **Coraciiformes**—Kingfishers. The name is derived from the Greek *korax,* meaning a water bird with short legs. The blue Belted Kingfisher is our member of this order.

Order 18. **Piciformes**—Woodpeckers. The name is derived from the Latin *picus,* a woodpecker, or the older form, *pigus,* meaning the painted one, quite suggestive of the brilliantly-colored plumage of some of the birds of this order. Roman mythology states that Picus, a son of Saturn, was a rustic, prophetic deity, also a forest god and earliest king of Latium. He slighted the love of Circe, who, in a fit of jealousy, changed him into a woodpecker, doomed forever to search out insects from the forest trees. Our best example of this order is the beloved little Downy Woodpecker dwelling with us in town and countryside, although the splendid Pileated Woodpecker would more nearly fit the role of the son of Saturn.

Order 19. **Passeriformes**—Perching birds, embracing about one-half of the known birds. The predominating order of this geological era. The name is derived from the Latin *passer,* meaning a sparrow. The root meaning of *passer* is connected with *pado,* the spreader. Hence, birds that spread the wings. Zenophon refers to the Ostrich as the big sparrow or big spreader. It ran so rapidly with outstretched wings that no horsemen could overtake it when pursuing alone or in relays. In this order we have birds having the general form and structure of the sparrows.

Johnson City, Tenn.

ANNUAL CHRISTMAS CENSUS, 1933

By OUR MEMBERS

We present below the results of our annual mid-winter census of bird life which in many ways was the most successful one we have yet held. A total of 90 species was listed as compared with 80 the previous year and 77 in 1932. An unseasonably mild winter was a factor in the large list for 1933, as well as the listing of several species which usually winter further South. We consider this mid-winter census as one of the most valuable of our activities, and our members have come to look forward to the occasion with enthusiasm.

	Memphis, Dec. 23	Lakeview, Ark. Dec. 25	Shiloh Park Dec. 24	Corinth, Miss. Dec. 29	Paris Dec. 25	Nashville Dec. 24	Murfreesoro Dec. 25	Chattanooga Dec. 26	Knoxville Dec. 24	Johnson City Dec. 27	Johnson City Dec. 31
Number of individuals	8764	61000	1454	742	182	6233	151	184	1938	6778	9464
Number if species	68	51	50	42	39	67	29	24	47	34	27
Number of observers	11	3	5	2	6	14	1	2	6	2	2
Pied-billed Grebe	--	--	--	--	--	1	--	--	--	--	--
Double-cr. Cormorant	8	19	--	--	--	--	--	--	--	--	--
Great Blue Heron	2	--	1	--	--	--	--	--	--	--	--
Canada Goose	30	--	--	--	--	--	--	--	--	--	--
Common Mallard	1032	--	--	5	--	32	--	--	--	--	--
Black Duck	256	--	--	--	--	54	--	--	1	--	--
Gadwall	--	--	--	--	--	6	--	--	--	--	--
Amer. Pintail	80	--	--	--	--	--	--	--	--	--	--
Green-wing Teal	24	--	--	--	--	--	--	--	--	--	--
Blue-wing Teal	12	--	--	--	--	--	--	--	--	--	--
Wood Duck	--	--	--	2	--	--	--	--	--	--	--
Ring-necked Duck	12	--	--	--	--	125	--	--	--	--	--
Canvas-back	--	--	--	--	--	12	--	--	--	--	--
Lesser Scaup	--	--	--	--	--	70	--	--	--	--	--
Amer. Goldeneye	--	--	--	--	--	2	--	--	--	--	--
Buffle-head	--	--	--	--	--	3	--	--	--	--	--
Hooded Merganser	--	--	--	--	--	3	--	--	--	--	--
Black Vulture	2	8	8	--	--	18	--	--	--	4	--
Turkey Vulture	4	4	16	6	8	17	--	--	16	7	--
Sharp-shin Hawk?	--	--	--	--	--	1	--	--	--	--	--
Coopers Hawk	--	--	--	1	1	3	--	--	1	--	--
Red-tailed Hawk	1	1	1	1	1	4	1	--	1	--	--
Red-shld Hawk	3	1	1	--	--	--	--	--	--	--	--
Bald Eagle	--	1	--	--	--	--	--	--	--	--	--
Marsh Hawk	2	1	1	--	--	3	--	--	--	--	--
Duck Hawk	--	--	--	--	--	--	--	--	--	1	--
Sparrow Hawk	9	1	1	1	--	20	--	1	1	1	4
Bob-white	27	1	12	--	16	13	--	--	8	8	--
Coot	--	1	--	--	--	65	--	--	--	--	--
Kildeer	315	7	38	2	3	15	8	--	2	--	--
Wilson's Snipe	6	--	--	--	--	5	1	--	--	2	--
Herring Gull	8	3	--	--	--	--	--	--	--	--	--
Ring-billed Gull	24	2	--	--	--	--	--	--	--	--	--
Mourning Dove	15	12	32	100	8	100	--	7	17	2	--
Screech Owl	--	--	--	--	--	1	--	--	1	1	--
Barred Owl	1	--	1	3	2	--	--	--	--	--	--
Great Horned Owl	--	--	--	--	1	--	--	--	--	--	--
Kingfisher	3	2	1	--	--	9	--	2	4	1	2
Flicker	44	14	16	20	3	71	5	5	53	9	8
Pileated Woodp'r	--	3	3	--	--	9	1	--	3	1	--
Red-bel. Woodpecker	20	18	8	6	1	33	--	1	1	3	2
Red-head Woodpecker	3	--	--	--	3	13	--	--	2	--	--
Yel-bel. Sapsucker	4	1	6	12	1	3	3	2	2	2	2
Hairy Woodpecker	4	2	3	8	--	7	--	--	3	--	--
Downy Woodpecker	13	4	8	4	1	24	3	2	13	14	4

Phoebe	3	1	1	--	--	1	--	--	1	3	3
Pr. Horned Lark	--	--	--	--	--	50	Flocks	--	--	--	--
Blue Jay	205	8	25	14	12	16	7	11	15	25	--
Crow	34	7	22	4	6	230	300	6	1030	24	29
Car. Chickadee	31	2	32	--	8	85	4	12	70	37	10
Tufted Titmouse	38	--	28	4	10	61	--	14	23	64	18
White-br. Nuthatch	--	--	4	2	6	7	--	--	2	12	4
Red-br. Nuthatch	--	--	--	--	--	--	--	--	6	--	--
Brown Creeper	6	--	3	1	1	7	1	--	5	--	--
Winter Wren	7	2	4	4	1	2	--	--	1	2	--
Bewicks Wren	2	--	--	--	--	11	5	--	--	--	--
Carolina Wren	62	6	13	6	4	60	9	4	38	27	14
Mockingbird	34	12	2	2	2	120	4	3	10	9	1
Brown Thrasher	14	--	--	14	--	2	--	--	--	--	--
Robin	28	2	4	10	2	255	--	--	1	--	--
Hermit Thrush	5	1	3	4	1	11	--	--	2	--	1
Bluebird	53	1	9	--	4	88	2	--	36	95	31
Golden-cr. Kinglet	18	6	20	20	4	7	--	10	20	8	9
Ruby-cr. Kinglet	2	1	--	--	--	--	--	--	5	--	--
Amer. Pipet	254	--	--	--	--	--	--	--	--	--	--
Cedar Waxwing	9	--	99	60	--	15	--	--	14	--	--
Migrant Shrike	25	21	2	20	--	1	--	--	3	--	1
Starling	547	289	8	--	--	3000	2	--	200	6000	20000
White-eyed Vireo	--	--	--	1	--	--	--	--	--	--	--
Myrtle Warbler	45	4	2	4	3	27	3	--	62	4	--
English Sparrow	com.	com.	com.	--	10	200	25	20	com.	150	56
Meadow Lark	158	50	15	15	3	175	3	10	14	23	24
Redwing Blackbird	2	8	67	--	--	--	--	--	--	--	--
Rusty Blackbird	15	--	--	--	--	--	--	--	--	--	--
Bronzed Grackle	631	43	422	60	--	60	--	--	--	--	--
Cowbird	150	2	--	--	--	--	50	--	--	--	--
Blackbirds—unidentified	3100	41000	--	--	--	--	--	--	--	--	--
Cardinal	147	17	38	35	11	195	14	5	32	40	7
Purple Finch	--	--	10	2	--	3	--	--	--	--	--
Goldfinch	75	5	46	15	--	60	2	10	25	45	42
Towhee	76	4	8	40	4	135	6	8	18	--	2
Savannah Sparrow	5	--	6	--	--	5	--	--	10	--	15
Fox Sparrow	15	1	4	35	1	1	--	--	--	--	--
Slate-col. Junco	362	82	129	25	18	190	10	20	37	92	114
Field Sparrow	95	61	89	25	8	160	2	18	44	15	12
White-cr. Sparrow	5	--	--	--	--	44	8	--	--	*22	--
White-thr. Sparrow	475	95	157	125	4	115	2	8	81	20	--
Swamp Sparrow	3	2	--	1	4	4	--	1	--	--	--
Lincoln's Sparrow	--	5	--	--	--	--	--	--	--	--	--
Song Sparrow	61	16	26	25	6	90	6	10	2	28	66

*These White-crowned Sparrows were observed on Dec. 17.

JOHNSON CITY: 27th, Boone's Tree, Sugar Hollow, and Cox's Lake. Temperature, 25-30, Bruce P. Tyler and R. B. Lyle.

JOHNSON CITY: 31st, Shoun's, Johnson County; cloudy; temperature 60, Bruce P. Tyler and R. B. Lyle.

CHATTANOOGA: 26th, White Oak Road and one and one-half mile walk around Baylor Lake; cloudy; W. K. Butts and Carl Gever.

MURFREESBORO: 25th, about 5 miles on foot, through small swamp and rocky woodland. George Davis.

PARIS: 25th, by motor from Paris to Eagle Creek, 15 miles hiked, traversing section between Eagle Creek, Sandy River and Tennessee River. Buster Thompson, Roy Reynolds, Scouts Joe Stephenson, Ellison Willoughby, Charles Veltman and Benny Whipple.

CORINTH, MISS.: 29th, six miles west of Corinth, Tuscumbia Bottom; temperature 40. Elgin Wright and Benjamin R. Warriner.

SHILOH NATIONAL PARK: 24th, temperature 53-66; Snake Creek to mouth of Gill Creek, through the park and by river road to Counce, Hamburg, Pickwick and Red Sulphur Springs. Mr. and Mrs. Ben B. Coffey, Jr., Franklin McCamey, Jr., and Scouts Hoke Leigh, Jr., and Robert Hovis, Jr.

LAKEVIEW, ARK.: 25th, temperature 35-39; bottomlands partially flooded; Barton Creek, from Lakeview to Old Town and return in auto. Mr. and Mrs. Ben B. Coffey, Jr., and Franklin McCamey.

MEMPHIS: 23rd, temperature 52-62; Raleigh and Wolf River bottoms, along railroad, National Cemetery; through Raleigh to Woodstock; uptown wharf; Riverside Park; Piney Woods; Brooks Avenue and Municipal Airport; Overton Park; Mississippi River at Middle Bar; up river in boat. Ben B. Coffey, Jr., Jack Embury, Henry Turner, Wm. M. Heiskell, Scouts Franklin McCamey, Clark McDonald, L. H. Goff, Hoke Leigh Robert Hovis, E. R. Moore and W. H. Land.

NASHVILLE: 24th, temperature 58-65; Radnor Lake, Overton Hills, Granny White Pike; West Meade, Belle Meade, Warner Park, Hillsboro Road, Belmont Heights, Knapp Farm, Elm Hill Road, Otter Creek and Cumberland River bottoms above Nashville. G. R. Mayfield, H. C. Monk, G. B. Woodring, W. J. Hayes, A. F. Ganier, Miss Tompkins, Jack Calhoun, Mrs. F. C. Laskey, Mr. and Mrs. Hicks, J. M. Shaver, H. S. Vaughn, V. S. Sharp and Eugene Williams.

KNOXVILLE: Members of the Knoxville Chapter, T. O. S. (Names not sent in.)

* * *

THE ROUND TABLE

THE SEASON AT MEMPHIS: On the Memphis Christmas Census a very representative land bird list (except hawks and owls) was secured and Messrs. Moore and Land noted several species of ducks on the river. Not many more species could have been added. The Nuthatches failed to report, and while a special search for Prairie Horned Larks and American Pipits was made, only the latter, heretofore rare, were seen. On the Shiloh census, two Mockingbirds and two Shrikes were finally seen late in the day, and no Red-headed Woodpeckers were seen, although a special search was made for all three. Much time was spent in the pines looking for the Brown-headed Nuthatch, but not even a Pine Warbler was heard or seen. The Tufted Titmouse was common on the oak-covered hillsides of Shiloh Park, in contrast with the next day (Dec. 25th), when we were west of the Mississippi River, down in the willow and cottonwood stands of the flat river country. Not a Titmouse was recorded there, and the first Chickadee was heard about 4 p. m. Red-headed Woodpeckers were absent here also. The weather had been unusually warm up until the 25th, but no Chipping Sparrows made the census lists. Last year our first winter records of this species appeared on both the Memphis and Shiloh lists. Henry Turner reported the first one this year on February 17. American Pipits have been seen at about five places near Memphis this winter. Two flocks totaling 400 were seen at three other localities north of Memphis; 3 Prairie Horned Larks were with one flock. 254 Pipits were recorded on the Memphis census, and 130 seen Dec. 24th on the Somerville, Tenn., Airport. 120 were found Jan. 7 on a favorite field east of town, but none on Feb. 12. At the Lakeview, Miss., barrow pit there were recorded: Short-eared Owl, 1 on Jan. 1; Blue-winged Teal, 2 on March 11; Woodcock, 1 on March 4—we were attracted at dusk by the "*peent*" note repeated many times and tried to flush the "unknown," but on "freezing" we saw the bird rise and heard our first Woodcock song; on March 11 we recorded 2 Greater Yellowlegs and 1 Lesser at this barrow pit. Previously that morning at the Mud Lake pits, while watching an early Sora Rail, we heard the hoped-for Yellowlegs whistle and saw 2 Greater Yellowlegs pass over. The three last species might be said to be our first Spring arrivals. (We mention here a record of a

Lesser Yellowlegs for Dec. 17 at the Mud Lake pits.) On Mud Lake (Tenn.-Miss.), we saw on March 11: L. Scaup, 48; Ring-necked Duck, 64; Pintail, 18; Mallard, 100 plus (paired off); Baldpate, 2, and Coot, 7. On March 4 we saw about the same lot except there were no Baldpates or Coots. Two swampy sloughs south of the levee, where trumpet vines were matted over the trees are used as blackbird roosts. The total number arriving from the West and South was estimated at 400,000 on March 4 and on Feb. 1, 600,000 (Grackles, 250,000; Starlings, 150,000; Red-wings, 10,000; the relative numbers being based partially on the day's observations). A pair of Red-shouldered Hawks have evidently started a nest at Mud Lake (Mar. 11). We noted an old Bald Eagle nest near the south shore of Mud Lake, but were informed that it has not been used since 1924. Between Nov. 14 and 17 an immature Bald Eagle was "winged" with a rifle on Mr. W. H. Wilkinson's place, near Somerville, Tenn. It was feeding on the ground when a negro first saw it. Luckily, the wing healed and the Eagle was sent to the Memphis zoo, where I identified it. Charles McPherson, Jr., now operates a bird-banding station at Germantown, 15 miles east of town, and has always had White-crowned Sparrows on his place each winter. At other points this species is rare. In recent weeks 14 White-crowns have been banded and a Gambel's Sparrow (*Zonotrichia leucophrys gambeli*) was examined by the writer. At Mud Lake, March 4, 1 adult and 12 immature White-crowns were seen. Migrating Savannah Sparrows were noted March 11, and 4 Red-tailed Hawks seen. Starlings are common in town and may linger to breed this spring. M. M. Turner reports a nest with young at Water Valley, Miss., 75 miles southeast of here, last July. Pine Warblers were common at Water Valley on Jan. 28, and one was noted north of Oxford. Benj. R. Warriner, at Corinth, reports Brown-headed Nuthatches there on Feb. 3rd. On a trip across the line into Tennessee on March 1, he recorded 3 Vesper Sparrows.—**Ben B. Coffey, Memphis.**

SWAINSON'S WARBLER IN TENNESSEE: In the article on page 1 of this issue there has been placed on record the account of a nest of this species (*Lymnothylpis swainsoni*), at Athens, Tenn., found by the late W. R. Gettys on May 21, 1902. The nest held 3 fresh eggs, which is the usual number laid by this southerly species. Since there is no other breeding record for the State, and wishing to look over the Gettys collection of eggs, the writer spent the day at Athens on March 3, 1934, and there examined the nest, eggs and supporting data. The eggs, which are pure white and measure 73"x52" average, check exactly with specimens in my collection taken in southern Georgia, as well as with published descriptions. (Only the Indigo Bunting lays similar eggs in such a nest, but the eggs of the latter are bluish white and those collected in Tennessee average smaller.) The nest was found to have been removed from the supporting branches and carefully tagged and wrapped with thread; a small round gourd had been placed in the nest cavity to preserve its shape. Its outside measurements were 4 inches in diameter by 2.5 inches in height; the inside diameter was 1.75 inches. Published descriptions of these nests mention a loose outer layer of large leaves, but these were absent and may have been removed by Mr. Gettys in order to better wind the nest proper with thread. My description, which follows, is somewhat fuller than that of the collector. "Nest, smoothly (not loosely) finished; externally of small leaves, broad flat blades of marsh grass and a few pine needles; within this are woven fine grass stems of a substantial thickness, and finally an inner lining of long black horse hairs neatly wound around the nest cavity." The nest as preserved, more nearly resembles that of an Indigo Bunting except that of many nests of the latter I have examined, none have been lined with horse hair. Mr. Gettys was quite active at birds-nesting for some years after 1902, and the fact that he found no more is good evidence that Swainson's Warblers were rare near Athens. Southward from that point, however, the writer noticed that many of the creek beds were broad and swampy, grown up with willows, button bushes and honeysuckle, making an environment conforming to the swamp-loving habitat of this species. It is probable that a search in these localities would reveal additional breeding birds.

Other Tennessee occurrence records are rare, although T. O. S. members have been actively on the lookout for it. The writer collected a specimen near Johnsonville on Sept. 7, 1914, in a swampy slough a half mile west of the Tennessee River and in a likely place for it to breed. Mr. Coffey, at Memphis, has written me of finding it on several successive years, during late April, among cane thickets in Overton Park, and also at Lakeview on July 3. Mr. S. N. Rhoads wrote, in 1895, of having seen and heard several, two of which were collected, in the Wolf River bottoms about 8 miles northeast of Memphis, between May 8 and 14. While usually an inhabitant of swampy areas, it has frequently been found in high, dry environment, as has been attested by Mr. T. D. Perry of Savannah, Ga., who found many nests near there. Nor is it entirely a bird of the low country. At Atlanta, at elevation 1,050 feet above sea level, Rev. H. A. LaPrade found a nest containing 3 eggs on May 27, 1920, near which th ere was no swampy area. (*Wilson Bulletin*, 1922, p. 80.) Near Bristol, Va., Mr. F. M. Jones describes a nest containing 4 eggs, found on June 4, 1932. (*Oologist*, 1933, p. 99.) This nest was at elevation 1,810 feet above sea level, and not in a swampy area. These eggs were quite large, averaging 80x60 inches in size.

Future records of this rare warbler will doubtless be eagerly sought, along with Bachman's Warbler, which is also due to be found, but as yet not recorded within the State.—**A. F. Ganier, Nashville.**

TREE SPARROWS AGAIN RECORDED AT NASHVILLE: On Feb. 26, 1934, with the temperature around 20 degrees and a light blanket of snow covering the ground, a varied assortment of foods were spread on cleared spaces for the birds and banding traps were operated at four stations, resulting in the capture that day of 149 birds of 10 species; 62 of this number were birds previously banded. Among the 87 new birds captured were two Tree Sparrows (*Spizella a. orborea*), in traps set a few feet from windows of our home. They were banded and released. On the same day Mrs. E. C. Tompkins saw a group of four at her home in Belle Meade, which is one of my substations. Though traps were set, none was captured there, but on March 1 another was trapped and banded at my home. None has been recorded from the State since 1918, when Mr. A. F. Ganier recorded the first Tree Sparrows from Tennessee (*Wilson Bulletin*, Vol. 30, p. 92). He saw one Jan. 13 about a mile from the location of my station and on the 19th, saw five or six in the same area, collecting two specimens. Ten more were seen by him between that date and Feb. 3, 1918, six of which were found on Stone's River Road, several miles distant.—**Mrs. F. C. Laskey, Nashville.**

ANOTHER WHITE SNOWBIRD: On Jan. 10, 1934, a hunter brought me an albino Junco which he had shot near Goodlettsville. It was pure white except for having a little brown on top of the head, and a little buff on the shoulders. The albino Junco which wintered on the Stokes place, south of Nashville, and mentioned in *The Migrant* a year ago, did not return during the past winter. In June, 1927, I was presented with a pure white Jay, which had but recently left its nest, and I kept it caged until Dec. 7 of that year, when it died. During the late fall it began to show a pale blue tinge on the feathers and the normally black "yoke" began to show indistinctly. I had the bird mounted.—**A. C. Webb, Nashville.**

A NIGHT IN A STARLING ROOST: About three miles west of Murfreesboro there was located the past winter an immense "blackbird" roost, and it immediately joined a very large Crow roost. The "blackbird" roost is partly in, but mostly beyond, the limits of the Stone's River Military Park and covers an area of about three-fourths of a mile long by a quarter mile wide. It consists of a thick growth of cedar trees from twelve to twenty feet high, on level ground. Wishing to see the birds come to roost and to hear and see how they conducted themselves during the night, I decided to "camp" among them and did so on the night of January 6. Being a clear, fairly warm night and with blankets enough, it was unnecessary to have a fire.

At 4:30 p. m., the birds began gathering in the large bare trees, anywhere from one-quarter to half a mile from the roost. The majority of these birds were Starlings, most of the rest being Grackles, but with some Cowbirds and Redwings mixed in. At a few minutes past five o'clock, the birds flew over the roost, where they began flying in an elipse about one-half mile long. The noise that these birds made in flying could be heard for half a mile. After flying low over the cedars for a few minutes, part of the birds lit. Fifty or a hundred birds would sweep into a tree at once, flying into the center. The flight before settling and in the process of settling resembled that of the Chimney Swift. When a lone Starling would alight, it dropped through the air in a "corkscrew" flight. The whole flock, of from 300 to 500 thousand, waited until nearly dark, and then settled into the cedars within ten minutes. It was half an hour, however, before they ceased moving among the trees. From 6:30 to 9 o'clock they were disturbed by hunters in the section outside the park. When thus disturbed the birds raised a loud din and moved about the roost without leaving it. As soon as the hunters left the birds became quiet, remaining so the rest of the night. At 6:20 in the morning the flock, without giving any calls beforehand, rose practically as one body and made two swift flights over the roost before dispersing. A few remained in the roost for half an hour longer.

Although this roost had been "shot up" nightly the birds continued to use it. Piles of heads here and there showed that some of the hunters at least had carried away the bodies for eating purposes. Bodies in various stages of decomposition were lying all about to the number of several thousand. A Cooper's and a Red-tailed Hawk were noted in the roost, probably having been attracted by the wounded birds. At places in the roost one could walk upon a perfect mat of hackberry seed, these having been dropped by the roosting Starlings and being good evidence of how many hackberries these birds eat.—**Jack Calhoun, Nashville.**

THE ANTI-CROW CAMPAIGN: During the week of Jan. 13-20, a "Crow Shoot" was sponsored throughout Tennessee by the Nashville Banner. Much publicity was devoted to the contest by the Banner, as well as by co-operating Knoxville and Memphis papers, and great results were expected. The total number of Crows killed, however, was reported as only 2,512, so hardly a perceptible dent was made in our immense winter population of Crows. Individual honors went to Admiral Wright of Lincoln County, who had a toll of 302. He lured them with three live owls and shot them from a blind with a .22 rifle. Individuals at Morristown, Murfreesboro and in Hawkins County followed by reporting 140, 123 and 118, respectively. Numerous Crow roosts were reported, including those in Rutherford, Maury and Sumner Counties, as well as in East and in West Tennessee. The Middle Tennessee roosts were in cedar woods and with the Crows were hundreds of thousands of Starlings, Grackles and scattering Cowbirds and Redwings. At the instance of the T. O. S., the Banner published requests to hunters to refrain from shooting game birds, useful hawks and owls and other useful birds during this campaign against the Crow.—**G. R. Mayfield, Nashville.**

ADDITIONS TO THE LIST OF WINTER BIRDS OF NORTHEAST TENNESSEE: To our list published in the September **Migrant**, the following may be added. The list referred to consists of those observed during December, January and February, without regard to their migratory tendencies.

Prairie Marsh Wren (*Telmatodytes palustris thryophilus*) appeared in the early winter along meadow streams, but did not stay during the most severe part of the winter.

Cedar Waxwing (*Bombysilla cedorum*). Winter resident in the heavily wooded districts, but occasionally visiting the cedar groves of the lowlands, where it feeds on the cedar berries.

Common Red-poll (*Acanthis linaria linaria*). The coldest weather on record for the Northeastern States forced this hardy little "red cap" to visit us. It occurred with Juncos and Sparrows in a bushy thicket bordering a woodland. Our terrain was not entirely snow-covered, but a short distance to the north "King Winter" was in full control with a heavy blanket of snow.—**Bruce P. Tyler and Robert B. Lyle, Johnson City.**

RADNOR LAKE NOTES: With an average winter, the wintering birds on Radnor Lake have remained about the same throughout December, January and February. The population on the lake was made up chiefly of Ring-neck Ducks, averaging about 100; Coots next, about 76; L. Scaup, 40; Mallards, 40; Golden-eye, 5; Canvas-back, 4. Gadwalls also appeared irregularly throughout the period. Later arrivals were Green-wing Teal, Jan. 28 and Feb. 4; Loon from Jan. 1 through Jan. 21, and reappeared March 11; Pintail, Jan. 14 and Feb. 4, also a flock of 14 on March 4; Horned Grebe, 7, arrived in winter plumage Feb. 11 and were still present March 11; Hooded Merganser, Dec. 17 through March 4; Bufflehead, Dec. 24 through March 4; The seven Geese liberated by the State Game Warden and mentioned in the December **Migrant** are associating with the tame geese belonging to the overseer of the lake. Four of the birds are now able to fly, while three of them cannot as yet. The Herring Gull that was released with an injured wing on Jan. 2 remained on the lake until Feb. 4. On Jan. 7 it was joined by two other gulls, but they did not remain.—**George B. Woodring, Nashville.**

WINTER NOTES, NASHVILLE: Golden Eagles to the number of four were trapped or killed during the past winter in Middle Tennessee. The first was trapped near Hohenwald on Dec. 18; the second, 12 miles west of Nashville on Jan. 1; the third, 10 miles north of Carthage (killed) on Jan. 4, and the last on Jan. 22, near Lebanon. Co-operating with the State Department of Fish and Game we arranged for shipment of the first two to the Great Smokies National Park, where they were released on March 7, after the snow had cleared from the mountains. Efforts are being made to secure the one trapped near Lebanon for the same purpose. The writer has been directing publicity designed to conserve our few remaining eagles. In the last *Migrant* I mentioned an aged Cardinal at my home. This bird and his mate have been at my feeding shelf daily all winter and are quite inseparable. The male frequently feeds the female and both have been singing since mid-January. This Spring the male will be at least eleven years old. On Jan. 21 the writer spent the day afield below Memphis wit hthe Coffeys, to locate old nests of the Mississippi Kite. Specimens of Song Sparrows and Shrikes were collected in order to determine the winter form present. The former has not been passed upon yet but the latter was found to be the Migrant Shrike. Starlings were more numerous during the past winter than ever before, particularly through January and February. The bulk of them departed about March first. During the winter they ate practically all of the hackberries, which probably accounts for the fact that Robins, formerly abundant during January and February, were again practically absent this year. Mrs. Laskey and Jack Calhoun each report a Brown Thrasher as having wintered near their premises; a mild early winter may have accounted for their presence. **—A. F. Ganier, Nashville.**

NEW BIRDS FOR THE TENNESSEE LIST: During the year following the publication of the **Distributional List of the Birds of Tennessee**, in Jan., 1933, no less than seven species or races of birds have been found for the first time within the State. In the pages of *The Migrant*, vol. 4, 1933, five of these are recorded, as follows: Laughing Gull. six at Knoxville (p. 8); White-eyed Towhee and White-winged Junco, captured at Nashville (p. 9); a Clay-colored Sparrow at Johnson City (p. 23), and Stilt Sandpiper, five at Memphis (p. 19). Two new sparrows were added to the list toward the close of the year by Mrs. F. C. Lasky, making a total of 18 kinds of sparrows thus far found in the State. These were the Gambel's Sparrow (*Zonotrichia leucophrys gambeli*) and the Harris's Sparrow (*Zonotrichia querula*), both Northwestern forms. She has submitted formal announcement of these to *The Auk*, in order to secure wider distribution of the record. These birds were trapped at her banding station at Nashville, the Gambels on Nov. 24 and the Harris on Dec. 10. Being first records for the State, the specimens were preserved by the Curator for the Society's collection. Mrs. Laskey's first record of the Gambel's Sparrow was of a mature bird trapped on Feb. 1, 1932, but not recognized at the time. The bird returned to her station in Jan., 1933, and was then recognized; it returned for the third year on Feb. 20, 1934, and was still present on March 10. In connection with the Harris Sparrow, it will be recalled that Mr. W. I. Lyon of Waukeegan, Ill., brought with him to the Wilson Ornithological Club meeting at Nashville in 1924 a cage containing several banded birds of this species. They were released on Nov. 29, on the Peabody College campus, which is on the south side of the city and three miles from the banding station, still further south. The possibility of the 1933 capture being a descendant or associate of Mr. Lyon's birds will always be a matter of speculation.

MEETINGS: The annual Spring Field Day at Nashville will be held on Sunday, May 6, and all T. O. S. members are invited to attend. The schedule of evening meetings is for March 19, April 2, 16, 30, May 14, 28 and June 11. The Knoxville Chapter will take its annual Spring Census on April 29, and will hold other meetings or trips on April 4, 15, May 2, 20, June 6 and 17. Memphis has planned its usual list of Spring meetings.

In East, Middle and West Tennessee there are 140, 122 and 123 kinds of birds, respectively, which spend the summer and nest; for the entire State this number is 176. As a problem for this summer's work, we suggest that members begin the listing of the breeding birds of their own locality or county. We should also like to have them send in at the end of the summer a list of the 25 most common summer birds of their area, arranged in order of abundance.

The migration season is at hand and data on the arrival of birds from the South and the time of leaving of our winter birds is desired from all parts of the State. We should like to have as many such migration reports sent in as possible for the Society's records and future reference.

THE MIGRANT

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"The simple truth about birds is interesting enough,
it is not necessary to go beyond it."

With this number, **The Migrant** enters its fifth volume and it is perhaps timely to pause and look about. We shall save retrospection for a day of greater maturity, but a word about our future is in order. Beginning with this number we increase our pages to sixteen, and we are counting on our members to provide "copy" to fill the sixty-four pages we have planned for the year, with worth-while notes and articles on Tennessee birds. Ornithology as we shall pursue it, is not a technical subject and it is our wish to produce material that is at once readable, instructive and entertaining, but always accurate in every detail. All of our members are invited to submit notes for these pages, and if you do not find in this journal the things that interest you, then do your editors the favor to write about these things and send them in.

In Tennessee we have a splendid field for the study of birds, and few States have within their boundaries such varied forms or such attractive environment in which to seek them. You need not journey far, however, to find new and interesting material. So little bird study has been done in Tennessee that nearly all we learn is new in the sense that the habits of our birds vary in many ways from those in Northern and Eastern States, where ornithological study has been pursued and written about for generations. And what of our findings that are not new! Shall we not indulge in a game because some one has played it before us? We feel that the study of birds is the most fascinating of pastimes, and that it will repay for any amount of time and interest one devotes to it. Granting this, we hope to see more and more of our members decide to make of ornithology their chief avocation, to equip themselves with books, field glasses, cameras, notebooks or whatever else is needed, and to lay the foundations upon which may be added, year after year, a storehouse of knowledge gleaned from personal observations. Sharing then your experiences with your fellow members by contributing them to the columns of The Migrant, will weld the T. O. S. into a more useful organization and make its journal a place where your observations will be preserved for reference through the years to come.

Our Society has done much for the conservation of birds during the nineteen years of its existence and plans to do much more. Frankly, however, conservation is not our chief reason for being; before and along with conservation there must be developed an appreciation for the things to be conserved. Furthering the study of birds among our members and enabling them to know and thus work with others having this kindred interest; this is our greatest reason for being and surely a worthy one.

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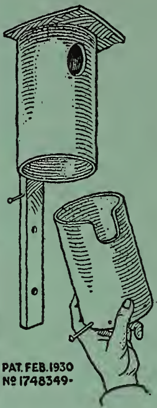

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THE MIGRANT

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THE MOCKINGBIRD'S IMITATION OF OTHER BIRDS

By GEORGE R. MAYFIELD.

For the past ten years I have been listening to the song of the Mockingbird throughout the entire year, and making notes on such of them as seemed of special interest. In this article I shall give some conclusions based on this study.

In the first place, I should like to say that these observations have convinced me that the Mockingbird inherits his repertory from many generations back and that, from time to time, each individual will pick up some new songs, or calls, from his environment. This can be seen when the mocker chirps like a young chicken, calls like a turkey, imitates the whistle of a human being, or gives an echo to some musical sound that he hears from his surroundings.

To make a complete study of the Mocker's powers of imitation, one would need to know: First, songs and calls of birds now extinct in this section of the world, which may have been imitated by the ancestors of the present Mocker; second, songs and calls of all contemporary species in this part of the United States; third, the songs and calls of all Mockingbirds now singing. The writer knows nothing of No. 1. He knows the songs and call of about 175 species, of which fewer than 100 may be strictly classified as song birds, and as for No. 3, he has listened to some 35 Mockers in different localities around Nashville and has tabulated some of the results. From these notes he has divided the songs of the Mockingbirds into three classes:

First: Songs unlike those of any species now extant. These songs may be original with the Mockingbird himself, or may be inherited imitation of birds now extinct. The power to inherit song has been demonstrated by young birds raised in isolation from others of their kind.

Second: Songs and imitations of species from other sections of the South. A striking example of this is found in the imitation by the Mocker of the Brown-headed Nuthatch. This latter species is not found within 100 miles of Nashville, so far as we know, and the question arises, how can the Mockingbirds we have here imitate so closely the songs and calls of this and other birds which are not in this section. Several theories have been advanced to explain this phenomenon. First, that this imitation is accidental. To this I would reply that too many Mockingbirds closely imitate this song of the Nuthatch for the imitation to be a mere accident. Another theory is that this Nuthatch was once to be found in this section. To this theory I would reply that since conditions in Middle Tennessee are probably as conducive to the presence of this species at present as in centuries past, it is absurd to maintain this idea. A third theory is that the Mockingbird migrates to the south of us and learned these notes by hearing the Nuthatch in his native haunts. Recent investigation by our Nashville observers indicates that the females and young do migrate southward into the territory of this Nuthatch and it is reasonable to suppose that the young males there learn the notes of that species. The fourth theory is in my judgment the best one of them all, namely. that the Mockingbirds in those sections of Mississippi, Alabama and Georgia, where the Brown-headed Nuthatch is found, hear the calls of this bird and imitate them. The Mockingbirds adjacent to this group catch these notes, find them pleasing to their ears and imitate them, and so from Mockingbird to Mockingbird the signal calls are relayed until they reach this section of Tennessee.,

Third: The Mockingbird has songs and calls imitating many of the species that are to be found breeding in Tennessee. Eighty per cent or more of the songs of most Mockers are imitations which may be recognized. In the case of others, as low as 30 per cent of their songs would be traceable to imitations of birds now existing in Middle Tennessee. It is significant that almost no winter birds are imitated as far as my records show, and also that few, if any, purely transient birds are imitated. This may be partially at least explained by the fact that Mockers do very little singing in the winter, and therefore do not take the opportunity to rehearse the winter notes of Northern visitants. We are then limited in our study of this mimicry to permanent residents and to summer residents.

Before taking up a list of the birds imitated, I should like to call attention to the differing songs of the Mocker at different seasons of the year. The most remarkable song from the standpoint of imitation is the spring song. It would require a good many adjectives to do justice to this song, and it is the one most often described by those who have named him the greatest of singers. Suffice it to say here then that this song is loud and ecstatic and is designed to win and hold a mate. Then comes in late summer a song which is less imitation and more improvisation. Usually the first week in September marks the beginning of this second period. Later in the autumn period we have a musing rhythmical song, low, sweet and expressive, in which practically no birds are imitated. He seems to be dreaming of the past or planning dimly for the future. This song can be heard in October and early November. The mating urge being no longer present, he apparently sings for his own pleasure alone, and frequently while hidden within the foliage. In midwinter the Mockingbird occasionally indulges in a song quite similar to that of late summer. It might be added in this connection that the night song of the Mockingbird is the most rapturous of them all and is marked by an unusual degree of imitation. This is most commonly heard in the month of June. In addition to the song of the Mockingbird, we should remember that he has certain calls which indicate various emotions, such as danger, protest, fighting, the presence of its young, and other feelings, the notes for which may be interpreted by those who know these calls.

We now come to a list of birds that are most imitated by the Mockingbird. I am placing the Carolina Wren, the Blue Jay, and the Cardinal at the head of the list. It might be said that the Mockingbird has stolen all the songs and many of the calls of the Carolina Wren and this is to a large extent true for the Blue Jay and the Cardinal. All of these birds are common in summer and may be heard frequently. In the next group I shall place the Bluebird, the Titmouse, the Purple Martin, the Red-headed Woodpecker, the Flicker and the Sparrow Hawk. Nearly all Mockingbirds imitate these species regularly and accurately. In the third group I shall include the Bob White, Towhee, Kildeer, Woodthrush, Maryland Yellow Throat and the Crested Flycatcher. Most Mockingbirds imitate these species regularly and accurateyl. In the fourth group I shall place the Wood Pewee, Red-eyed Vireo, Kingbird, Chat, Whippoorwill, Thrasher, Catbird, Baltimore Oriole, Summer Tanager, White-eyed Vireo and the Bewicks Wren. Many Mockingbirds imitate these species and do so fairly well. In the fifth group I would place the following species as represented in the repertory of many Mockingbirds, but not so frequently imitated, the Robin, Warbling Vireo, Red-winged Blackbird, Mourning Dove, Indigo Bunting, Crow, Yellow-billed Cuckoo, Bronzed Grackle, Kingfisher, Meadow Lark, Orchard Oriole, Screech Owl, Carolina Chickadee, Phoebe, Chipping Sparrow, Field Sparrow, Chimney Swift, Louisiana Waterthrush, Kentucky Warbler, Hairy Woodpecker and the Barn Swallow. There are some other birds where doubt should be expressed as to the imitation on the part of the Mocker: the Cowbird, Acadian Flycatcher, Goldfinch, Red-shouldered Hawk, Nighthawk, White-breasted Nuthatch, Ovenbird, Migrant Shrike, Song Sparrow, Scarlet Tanager, Yellow-throated Vireo, Black and White Warbler, Hooded Warbler, Sycamore Warbler and the Downy Woodpecker.

As I have already indicated, the extent of imitation depends largely on the individual bird and the season at which he is singing. The average Mockingbird will imitate from 25 to 30 species of birds and some of these species are imitated with different notes. This is true with respect to the Carolina Wren, the Jay, and the Cardinal, to an unusual degree. In rare instances do we find a Mockingbird which imitates more than 35 species. One individual located on the Lebanon pike, near Mt. Olivet Cemetery, was found to have a repertory of 38 species. Since there are only about 70 species of permanent residents and summer residents in this section that can be classed as singing birds, one can see that he has learned a very high percentage by his vocal prowess. I have noted in all about 50 different songs or calls which were imitations of other birds, due to the fact that some were mimicked in two or more different ways.

The writer is now engaged in making a more complete study of this subject, and will welcome any notes or suggestions from bird observers who have been listening to the Mockingbird with a view to recognizing the various notes which this master songster makes as he imitates his fellow birds.

Nashville, Tenn., June, 1934.

* * *

UNORTHODOX PROTHONOTARIES

By BENJ. R. WARRINER.

It is not at all unusual for migrating birds to return to the same neighborhoods, and frequently to the identical spots where they had their nesting places the preceding season. It would appear that a bird in his travels of two thousand miles to Central America would forget his way back to the exact place where he had made his summer home the year before, but as a matter of fact this does not appear to be the case. An unerring sense of direction and place leads him surely to his goal. An illustration came recently under my own observation and justifies recording, especially when there must be added to the account a further description of a bit of extraordinary conduct on the part of the Prothonotary Warblers involved. The case, all told, is one of the most interesting bird stories I know.

The Prothonotary Warbler. a gay little fellow who wears a brilliant yellow hood and cape, and who sings the sweetest of songs, builds his nest along streams or about lakes and swampy places, in small cavities found in dead limbs that overhang the water. He is instinctively a bird of the lowlands and swampy wooded bottoms. An abandoned woodpecker's hole in a dead willow stump protruding from the water is the sort of ready-built house that he prefers. His passion for the water and his love for sylvan solitude, lead him always to the deep recesses of creek and river bottoms.

In the spring of 1932 a pair of these birds accidentally discovered a huge hornet's nest that hung on the wall on the front porch of a farmhouse situated some ten miles from my home, and only a stone's throw from the Mississippi-Tennessee line. Fortunately the people who lived there were deeply interested in the birds and their preservation, otherwise this incident would not now be related. The hornet's nest had been found in the woods the year before and kept intact because of its unusual size. It was pear-shaped and about as large as a three-gallon bucket. It was made of the same parchment-like substance that is found in common wasps' nests. A very small opening had been left at the bottom. The interior was a framework of thin partitions, made of the same material as that found in the outer walls. The warblers having discovered this big, abandoned and inviting domicile, and having duly explored its interior, decided to claim it for their home. Certainly, however, it was not located in the right place for them and for the satisfying of an age-old instinct that was supposed to guide them to an entirely different environment. It was fully half a mile to any sort of stream or pond; the house was on a wooded hillside, high and dry. Nothing about the locus suited the nesting habits of the Prothonotary Warblers—nothing except that luxurious ready-built palace which evidently possessed an appeal for the birds as strong as instinct itself. They moved in and started housekeeping and homemaking at once. They raised their brood there and in the fall all the family flew away to the far south.

The next spring the pair came back and sought out the hornet's nest. They found it in the same place. It had been torn by some intruder during their absence, and rendered unfit for their use. But a human friend discovered the predicament of the birds and came to their assistance by putting the nest into a good state of repair. Then again the Prothonotaries took possession. When I was told about the strange little yellow fellows and their unusual attachment to the hornet's nest, I went out to see them. That same day the fledgelings came, in fact, were still damp when I peered into the cavity. At the moment the old birds were away in search of food. I hid in the bushes to await their return, for I was puzzled about the identity of the tenants of the hornet's nest. Directly the mother bird came and immediately afterward the beautiful male joined her. I was a bit startled to see them, for Prothonotaries had no business there. They had violated every Prothonotary tradition I had learned in ten years of study and observation, but the proof was there before my eyes.

This experience serves as an interesting illustration of the fact that no amount of study will reduce the habits of birds to a mathematical formula, and that they will often depart from their orthodox modes of living.

CORINTH, MISS., 1934.

STATE OFFICERS

The following State officers were elected to serve the T. O. S. for one year, beginning July 1, 1934: President, George R. Mayfield of Nashville; vice-president for West Tennessee, Ben B. Coffey of Memphis; vice-president for East Tennessee, Bruce P. Tyler of Johnson City; vice-president for Middle Tennessee, H. S. Vaughn; curator, Albert F. Ganier; secretary, Mrs. F. C. Laskey, and editor-treasurer, George B. Woodring, the last four from Nashville.

SUMMER BIRDS OF SHADY VALLEY

By ALBERT F. GANIER and BRUCE P. TYLER.

Some years ago, while studying the detailed maps of the mountains in northeast Tennessee, there was noted a high and extensive mountain cove in Johnson County, called Shady Valley. As shown on the map (Abingdon Sheet, U. S. G. S.), the broad flat floor of this valley is 2,775 feet above sea level, over a mile in width and about five miles long. Killebrew and Safford's *Resources of Tennessee*, written in 1874, gave the following interesting pen picture of the valley as it was at that time. "Shady is an interesting place. It has a much greater elevation than the Johnson valley (to the west), but is of limited extent. It is a delightful retreat in the hot summer months. The little basin was formerly noted for the excellent iron made at a forge within its limits. It is so elevated that its flora is Canadian in character. Within it, cranberries grow wild and Northern pines and balsams flourish. It is encircled by the Holston Mountain on one side and Iron Mountain on the other (the southeast). Portions of it are swampy and unfit for grain raising. It produces fine grass and considerable quantities of hay are raised. But its remarkable feature is its astounding adaptability to the raising of cranberries. These berries grow wild in every portion of it. and are of the largest species. There are not less than 10,000 acres that would produce them and perhaps this entire surface is now covered with them. Here they have grown from time immemorial without any cultivation. . . . The natives pay but little attention to them, although hundreds of bushels could be gathered at a nominal cost. Now and then the women gather a few bushels and exchange them for coffee, sugar, etc."

Further study of the maps showed no similar area, nor did subsequent inquiry reveal any, so here apparently was a locality which, due to the peculiar ecological conditions which had prevailed through many years, gave promise of yielding certain species of nesting birds that might not be found elsewhere in Tennessee. We realized, of course, that the influx of new settlers and their ceaseless efforts to drain and tame the bogs for plow and pasturage had wrought vast changes and so we found it as on the morning of June 5, 1934, we viewed it from the road-gap on Holston Mountain. Having located ourselves comfortably at a farm house we set about making an intensive four-day survey of the birds to be found in the valley proper, giving special attention to the several hundred acres of swampy, partially wooded bogs. We did not investigate the high ground surrounding the valley, feeling that our survey would be of greater value if confined to the low areas, where unusual vegetative conditions prevailed.

Drainage ditches have, within the last few years, been cut in every direction through the areas in which water formerly stood, yet so great is the seepage of water from the mountains around that this area still remains damp and boggy. At the time of our visit, these ditches were running with water, although the weather had been quite dry. The cleared bog, into which stock had been turned, was rankly grown with many varieties of sedges, including patches of "bull rushes," cinnamon fern and Carolina rose, while black alder and dwarf willows lined the streams or clustered about the springs. The small cranberry plants of which Killebrew wrote are now practically all gone. Two areas of virgin timber are still intact, being of about fifty acres each, and belonging to Mr. J. E. Cole, an old settler. One of these lies in front of his home, in the bog proper. and the other lies some thirty feet higher in elevation on a gentle slope. In both tracts the most striking trees are the red spruce, hemlock and white pine. The first named is very unusual at an attitude as low as this. Hemlock, poplar and white pine were found growing as large as four feet in diameter. Under such growth is a "jungle" of rhododendron, mountain laurel and associated plants, arising from a thick carpet of sphagnum moss, all yielding a combination found only elsewhere, in this State, at much higher altitudes. Usnea moss was abundant on the trees throughout the bog area, and this doubtless accounted for the fact that the Parula Warbler was the most abundant bird in this environment. The considerable area of wet bogs grown with rank sedges, etc., would seem well adapted to the Short-billed Marsh Wren, Swamp Sparrow and the rails, but none were seen. Other birds, regularly occurring in the large valleys to the east, were conspicuous here by their scarcity or total absence. A large Hawk and a Kingfisher were described to us as having been seen by others during our stay, but we did not observe them. However, a hawk's nest, apparently that of the Broad-wing, was found in a large beech, and a native told us that both birds had been shot at this nest the previous summer.

The valley is a unit in itself, being surrounded on all sides by mountains rising to 4,000 feet. Even at the lower end, the valley closes in and its stream, Beaver Dam Creek. escapes through a narrow gap. The lack of a continuous approach valley has doubtless prevented many typical valley forms from working their way up into Shady. Old settlers told us that many beavers were here during the early days, and that their dams formed a series of shallow lakes all about the valley floor. A colony of muskrats still live in the small pond below Landau's spring. Farms now entirely surround the low bog area, and it is only a matter of years until this unique upland swamp, with its interesting plant and animal life, will pass out of existence as such. A vegetative study of the valley is being made by Mr. J. K. Underwood of the University of Tennessee.

The list of 59 species of birds, briefly annotated, follows. The names are those used in the A. O. U. Checklist, 1930. Sub-species given are those assigned to this area by the **Distributional List of the Birds of Tennessee**, 1933. Those of which specimens were collected are denoted by an asterisk.

Eastern Green Heron. One seen daily at Landau's pond.

Turkey Vulture. Noted daily, six seen on one occasion.

Eastern Bob-white. A very common bird. Two nests, 1 egg in each.

American Woodcock. Noted on three occasions, about the pond.

Kildeer. Noted at two localities.

Eastern Mourning Dove. Common about the open lands.

Yellow-billed Cuckoo. One observed in Cole's swamp woods.

Eastern Whip-poor-will. One to three heard each evening.

Chimney Swift. Fairly common. Nest found with parent sitting.

Ruby-throated Hummingbird. Fairly common, especially in low woods.

Northern Flicker. Common in swamp land deadenings.

Northern Pileated Woodpecker. One or two pairs were found in Cole's low woods.

Red-headed Woodpecker. Only one noted, in a swamp deadening.

Eastern Hairy Woodpecker. Noted at three locations.

Eastern Phoebe. Fairly common. Nests in barns, under bridges, houses, etc.

Acadian Flycatcher. Fairly common in low woodlands.

Least Flycatcher.* Fairly common, chiefly in the woodlands along the creek. This was the first time we have been able to record this species as a summer resident in Tennessee.

Eastern Wood Pewee. Fairly common in the woodlands.

Barn Swallow. Six pairs were nesting in the Garland barn. In some were fresh eggs; in others, large young.

Northern Blue Jay. Only five were noted in the valley.

Eastern Crow. Only a few seen, perhaps three pairs.

Tufted Titmouse. Six or more noted at two locations.

Carolina Chickadee. Observed at two lowland locations.

Bewicks Wren. Several pairs were located.

Carolina Wren. Fairly common and uniformly distributed.

Catbird. About 10 seen at two locations along the creek.

Brown Thrasher. Five pairs were noted.

Southern Robin.* Abundant, many young birds about. A male collected and sent to Dr. H. C. Oberholser of the U. S. Biological Survey, brings the opinion from him that it "is intermediate between the northern and southern races, but since birds from Roan Mountain are nearer *Turdus migratorius achrusterus* (Southern Robin) it will probably be better to consider this specimen the same."

Wood Thrush. Fairly common in all woodlands.

Eastern Bluebird. Fairly common, chiefly in the deadenings.

Cedar Waxwing. Three observed near Landau's pond.

Starling. Common everywhere.

White-eyed Vireo. Noted at six locations.

Mountain Vireo.* Four males were observed in Mr. Cole's two woodlands, feeding in pine and spruce. Their penetrating, distinctive song in this valley recalled to us our past experiences with them on the mountain tops.

Red-eyed Vireo. Common in all woodlands.

Northern Parula Warbler.* Noted in all woodlands and common in Cole's low woods. An old nest was found 9 feet up, in this location, built in usnea moss, which was here abundant.

Eastern Yellow Warbler. Six or eight were recorded.

Blackburnian Warbler. Four males were observed in Cole's low woods, feeding in the spruce. A beautiful male permitted inspection at twenty feet. Except high in the Great Smoky Mountains, we had not recorded it before as a summer resident in the State.

Chestnut-sided Warbler. Eight or ten seen and at one location—the mouth of a small valley on the west side.

Ovenbird. Fairly common in upland woods.

Louisiana Water Thrush. Several pairs noted along Beaver Dam Creek in woodlands, and old nests were found. Diligent but fruitless efforts were made to collect a specimen to ascertain if the form might not be the northerly subspecies *S. n. noveboracensis.*

Maryland Yellow-throat. Quite common in the bogs. While searching such locations we were surprised to find neither the Blue-winged nor Golden-winged Warblers present.

Yellow-breasted Chat. Fairly common in cut-over land.

Hooded Warbler. A male observed in Cole's low woods.

English Sparrow. Common, about the farms.

Eastern Meadow Lark. Common, in the open fields.

Eastern Redwing. Fairly common, in bogs and Landau's pond.

Purple Grackle. Eight or ten pairs were present.

Scarlet Tanager. Fairly common in the woodlands.

Eastern Cardinal. Common and universally distributed.

Indigo Bunting. Common; found in all locations.

Eastern Goldfinch. Fairly common, usually in small flocks.

Red-eyed Towhee.* Fairly common.

Eastern Grasshopper Sparrow. Two males seen in hay fields.

Eastern Vesper Sparrow. About six pairs were located, two of which were feeding young out of the nest.

Eastern Chipping Sparrow. Abundant. A nest held young.

Eastern Field Sparrow. Common. A nest held three eggs.

Mississippi Song Sparrow.* Abundant in the low ground. Several nests found. Two specimens which were collected have been tentatively referred to this race, *Melopiza melodia beata,* by Dr. Oberholser.

NASHVILLE, (A. F. G.) AND JOHNSON CITY (B. P. T.), June, 1934.

BIRD BANDING BREVITIES. NO. 1

By MRS. F. C. LASKEY.

Juncos have been abundant about the banding station this past season, 152 having been banded as compared with 98 and 4, respectively, the previous two years. This should not be construed to indicate their relative abundance locally, but more likely indicates they have learned that millet is plentiful around the traps. There were 8 Junco returns. The first spring migrant of the Field Sparrows appeared at the station on March 7. 1934. Its bright, clean plumage distinguished it from the wintering group in their dull gray garb. The peak of the Field Sparrow migration came this year in April, instead of March, as in 1932 and 1933. The delay was probably due to the cold, stormy weather of early spring. As usual, there were more of this species handled than any other. White-crowned Sparrows* increased in numbers about the station this year. Three returned for the third year. Repeat records indicate a group of 15 remained close to the station throughout the winter, while about 50 transients stopped in fall, spring or both. Savannah and Lincoln's Sparrows have been trapped only during the month of March, April and May for the past three years, which may be an indication they use a different migration route in the fall. A few Savannah Sparrows, of course, may be found about Nashville during the winter months. Six Lincoln's Sparrows were banded between April 22 and May 22, 1934, with a repeat on May 23. Of particular interest was the remating of the resident Mockingbirds known as "B" and "Y" (banded in 1931), with their mates of last year.** One of the females wintered at the banding station; the other migrated, returning March 27. Bluebird No. B 176077, a male, banded as an adult April 16, 1932, is known to have chosen the same nest box four times in three seasons, assisting in the raising of at least four broods with a different mate for each brood. Brown Thrashers appear to be loyal to their homes, for 8 returned to their respective places of banding this spring and early summer. One is back for his fourth known season and has a different mate from last year; two for their third seasons; one banded in Belle Meade in 1932 was again taken this year. Of the 191 banded since August, 1931, 22 have been heard from as returns or recoveries; 16 returned to place of banding, 4 were reported locally, I was recovered in Fayette, Ala., and 1 was recovered in Cypress, La. Three Chipping Sparrows returned this spring for their third seasons. One adult made Indigo Bunting banded October 9, 1933, returned May 19, 1934. A Robin recovery was reported by the Bureau of Biological Survey from Hanceville, Ala.. killed by a boy. It had been banded by me as an adult October 15, 1931. Reports have just been received of a Bronzed Grackle banded at Belle Meade substation April 1, 1932, killed in Centerville, Ala., November 27, 1933. A Mourning Dove banded April 8, 1933, was shot in September at Lewisburg, Tenn. The total number of birds banded from August 1, 1931, to May 31, 1934, is 3,734, representing 69 species; the return and recoveries number approximately 300, but the repeat records run close to 3,000.

NASHVILLE, TENN., June, 1934.

*White-crowned Sparrow return dates and Brown Thrasher return and recovery dates appear in July, 1934, *Bird Banding*.

**For previous history of these Mockingbirds, see *The Migrant*, Sept., 1933.

SPRING FIELD DAYS

The annual Spring Field Day of the Tennessee Ornithological Society was held Sunday, May 6. near Nashville, and in spite of a rainy start, about forty students of bird-life were in attendance. The site of the outing was Idlewild Wood, on Stone's River, where several members of the Society have summer homes and have created a bird sanctuary on the bluffs above the river. Stops were made at several points en route, including Shelby Park, Knapp Farm and ponds at which migrating shore birds were found stopping briefly on their way northward. Braving fitful showers, the group fallied forth on arrival, in several parties, jotting down on bird-listing cards the various species as they met them. At one o'clock, the farm bell at Dr. Vaughn's camp summoned the searchers to a bountiful repast provided by the lunch committee and experiences of the morning were exchanged during the meal. At a short business session, a report of the nominating committee was heard and State officers for the coming year were elected, as shown on another page. A resolution was made and adopted, thanking the officers of the past year for their services. During the afternoon the members visited the wild flower gardens on the bluff or fared forth to add new birds to the already auspicious list. The warbler migration was found to be in full swing and no less than twenty-one species of this family of birds were found. At a final gathering, lists were compared and it was found that ninety-seven different kinds of birds had been seen during the day.

The annual Spring Field Day of the Knoxville Section was held on April 29, in the vicinity of the Island Home bird sanctuary above Knoxville, on the Tennessee River. The weather was cold, windy and threatening, so hopes for a record list were abandoned at an early hour. In all, there were about thirty participants in the listing, including several members from a distance. Scouting parties were detailed to search the river and out-of-the-way places, and at the end of the day the list had been built up to ninety-three species. This was seven short of the list of last year. A camp-fire lunch was served at 1 o'clock, under the pines on the premises of Harry P. Ijams, perennial host. At this time a preliminary check was made of the lists and the collection of mounted birds owned by the Knoxville section was looked over. A further search during the afternoon netted several more species, including a Lincoln's Sparrow. No birds of unusual rarity were listed, but the total included eighteen members of the warbler family. Officers of the Knoxville Section are John Bamberg, president; Dr. O. H. Wiles, vice-president; S. A. Ogden, curator, and Miss Mary Ruth Chiles, secretary-treasurer.

The Memphis Section held its annual Spring Field Day on May 6, south of Memphis, near the State line. where Lakeview, on Horn Lake, was used as headquarters. An excellent turnout of members and a diversified region made it possible to build up a list of one hundred and fifteen species of birds before the day closed. This number exceeded any one day listing that is known for the State. Mr. Coffey's notes, which follow in The Round Table, give the most interesting birds observed during the day, as well as a list of the localities visited. The present officers of the Memphis Section are Miss Mary Davant, president; Earl Henry, vice-president, and Miss Alice Smith, secretary-treasurer. An election of officers for the coming year will be held in October.

NOTE: Due to lack of space we are not printing the consolidated spring field lists this year. The species found closely parallel the lists printed in our June numbers for the two years past.—Editors.

THE ROUND TABLE

THE SEASON AT MEMPHIS: Records from Mud Lake and from the Horn Lake barrow pits, at the Mississippi State line continue to be of interest. On March 18, about 19 Blue Geese and 5 Lesser Snow Geese, 4 to 6 Shovellers, and a female Bufflehead were seen. Earl Henry noted 2 Gadwall on March 22. On March 25 a pair of Canvasbacks, 19 Shovellers, and 2 Blue Geese were seen. Over 20 Shovellers were seen there on the 31st and 2 on April 15, while on April 20 we saw 29 flying overhead, north of town. The Bufflehead was seen up through April 8. From 800 to 1,000 L. Scaup were on Horn Lake March 25, while about 40 on the barrow pit to the south dwindled down to 3 by May 6. On the latter date 18 Coots and 6 Blue-winged Teal remained, and a female Hooded Merganser was seen, trailed by 8 young ones about 4 weeks old. On March 31 five Upland Plover were seen on the Mud Lake Levee; this is the second Memphis record. On April 8 a Loon was seen on Horn Lake (my first personal record). No unusual shorebirds were noted this spring—the common ones, the Lesser Yellowlegs, the Solitary, Pectoral, Least and Semipalmated Sandpipers arriving March 11, 18, 22 and April 15 (the last two) respectively—the less common ones, the Greater Yellowlegs, March 11, and Spotted Sandpiper, April 8. As high as 12 Greaters were seen on April 22 and 9 on May 6. The Semipalmated Plover was often seen in small groups and arrived April 20.

The main blackbird roost at Lakeview was found to be in a heavy growth of young willows about a half mile long and 50 yards wide, with about a quarter mile of open water beyond the west end. The Shovellers and most of the other ducks noted above were seen here. The willows, extending 8 to 12 feet above water, were in water 1 to 5 feet deep and over. A better estimate of the number of birds present, as given in the March *Migrant*, was made at the roost on March 20: Bronzed Grackles, 200,000; Red-wings, 200,000; Cowbirds, 100,000; Rusty Blackbirds and Starlings, 100,000. The Starlings diminished in number first, and the Rusties also become less common, although some were seen and banded as late as April 11. The Grackles also decreased in number so that the flock had a ratio of about 3 Red-wings to 1 Grackle and 1 Cowbird as summer opened. At the last of March the total number was estimated as 300,000, at which time a banding expedition failed on account of too much moonlight. Another quest failed on April 11, due to the fact that the flock apparently had dwindled to about 5,000. A large number of Red-wings are nesting here in this roost, likewise 4 or 5 pairs of Warbling Vireos. Two Least Bitterns were seen here on June 3 and 1 to 3 Soras also up to that time. The Pied-billed Grebes evidently did not nest in this vicinity this year, due to shallow water caused by lack of rainfall.

Three record-breaking field trips were made this spring, despite the fact that on the two best ones several hours were lost, due to rain. On April 22, 109 species were listed, including 3 Prairie Horned Larks (Municipal Airport), 1 Grasshopper Sparrow, 1 Lark Sparrow (first record within 40 miles), 1 Prairie Marsh Wren, 1 Anhinga, 300 Double-crested Cormorants (moving northward), 1 Osprey, and 16 species of warblers. A Starling, last of the winter horde, was noted. An April 29, 100 species were listed, including 25 Kingbirds, 17 species of warblers, and nearly all the species of waterbirds noted in the first paragraph. On the annual field day of the Memphis chapter, May 6, 115 species were noted, all but the Painted Bunting (No. 4) being seen at our regular tramping grounds—Lakeview, Miss., north on the Y. & M. V. R. R. into Tennessee, and the woods, back for lunch, then a visit to the levee and the barrow pits. The list included 100 Bobolinks, a few thousand of Red-wings, Cowbirds, and Grackles coming in to roost, 2 Ruby-crowned Kinglets (late), 42 Nighthawks, 3 Wilson's Snipe, 2 Yellow-bellied Sapsuckers, 2 Savannah, 5 Swamp, 6 Lincoln's, and 7 White-crowned Sparrows, 20 species of warblers, including 1 Mourning Warbler, 1 Fish Crow, 5 Double-crested Cormorants, 10 Common Terns, 7 Black Terns, and most of the waterbirds previously mentioned, including the Hooded Merganser. On the April 22nd trip our first and, so far, only "flight" of hawks was noted. We were seated on a small rise near Nonconnah Creek, north of the Municipal Airport, and from 12 to 12:15 we saw the following hawks flying east-northeast in groups as indicated: Cooper's Hawk, 6, 4, 22, 5, 1, 2; Broad-winged Hawk, 5, 10; and Marsh Hawk, 1, 1.

The Red-shouldered Hawk nest mentioned in the March *Migrant* contained two young hawks about a week old on April 29. On the same date no Mississippi Kites were seen in the Ensley bottoms. but on May 13 two were seen. On May 27, Mr. Ganier joined us to make a further investigation of the old nests found in these bottoms last winter. On climbing the first two, he reported them in fine condition, with new lining, including green leaves. Kites were observed at each nest, but due to not having laid yet, they offered no protest. The third nest tree was covered with poison ivy. They will be revisited at a later date. Eight of the Kites were seen soaring together a half mile away. Two Kites have been seen over Vance Woods, inside the southern city limits. An Osprey was seen at Mud Lake, April 22, May 13, and two on May 19, but none have been seen since. Lincoln's Sparrows were more common than usual—though still relatively uncommon—being seen in many places from April 26 to at least May 6. I am now sure of the identification of 5 of this species seen on December 25, 1933, at Lakeview, Ark. A few Vesper Sparrows were recorded March 20 and 31. On April 29, at Mud Lake, we watched for some time a Wood Pewee with white outer tail feathers and a white tip to the tail. On a trip eastward along the southern edge of Tennessee, on April 1, several pine woods were searched for Nuthatches and Pine Warblers. Only the latter were found and they not until we had nearly reached Shiloh. Mrs. Coffey noted 2 Brown-headed Nuthatches on April 15 at their usual place, at Hickory Flat, Miss. A Blue-headed Vireo was seen in Overton Park on April 5 and again on May 1. These are our first local records. An Orange-crowned Warbler (rare) was seen there April 12 and 2 Cape May Warblers on April 29. Cerulean Warblers were common from April 15 to 19.—**Ben B. Coffey, Memphis.**

BROWN-HEADED NUTHATCHES IN NORTHEAST MISSISSIPPI: A group of these interesting little birds seem to have settled permanently in the small patch of pines at Waukomis Lake, in Alcorn County, Miss., ten miles due south of the Tennessee line. This particular woods covers an area of about two acres, while in close proximity there are other spots thickly covered with pines. Elgin Wright and I found the birds the first time this year, the middle of February. There were only three of them. On March 10th, I located them again, but it was too dark to make an accurate count. On April 20th, I found a flock of nine. Most of them were young birds, grown in size, but still depending on their parents for food. The old birds were warbling soft but distinct notes as they searched for food for their babies. Interspersed with their song there was the usual metallic call.—**Benj. R. Warriner, Corinth, Mis.**

ANOTHER VISIT TO "CRANETOWN:" On May 13, 1934, a trip was made to Reelfoot Lake to visit the large heronry there, often called "Cranetown." The trip was made by Dr. H. S. and Will Vaughn, A. F. Ganier, Vernon Sharp, and myself. We crossed the lake by motor boat from Samburg to the head of Bee-Tree Basin, then waded through swampy woods (passing over Black Bayou) for approximately a mile to the nesting grounds. The bulk of the nests were placed high in huge cypress trees with the water varying at the base from two to three feet deep. It was estimated that there had been no great change in the population during the past year, there being about 400 pairs of American Egrets, 200 pairs of Cormorants, 200 Wards (Great Blue) Herons, 50 Anhinga, and 12 Black-crowned Night Herons nesting there. An unsuccessful search was made for nests of the Little Blue and Yellow-crowned Night Herons, also the Snowy Egret. The larger trees held from ten to thirty nests; several of each species in every tree. About seven Black Vultures were noted sitting on dead limbs throughout the nesting colony. On this date nearly all of the nests of the Great Blue Heron contained young, some as old as four weeks; the American Egrets either had young or eggs that were ready to hatch; the Black-crowned Night Herons were building in the young cypress trees, only a few nests containing fresh eggs. The Cormorant nests held eggs, but some held young a week old, while the Anhinga nests contained eggs. The Prothonotary Warblers, Coots and Red-shouldered Hawks were very conspicuous about the lake, while the Least Tern, a Mississippi Kite, an Osprey, and a mature Bald Eagle were the outstanding ones on the list. For a more detailed description of "Cranetown," see *The Migrant*, Vol. IV., page 13.—**George B. Woodring, Nashville, Tenn.**

SPRING NOTES, NASHVILLE: The male Cardinal at my home, now at least eleven years old, is being kept busy teaching the ways of the world to two of his offspring, while his mate is brooding a second set of two eggs. The first brood of young left the nest on May 8,but one of them disappeared. This first nest was at the south window in the same crotch they have used for six years past. On April 15, with Calhoun and Hayes, we examined the mile of high cliffs overlooking Bell's Bend of the Harpeth River. Two young Great Horned Owls flew from a ledge more than a hundred feet above the stream and in a cave in the cliff a Black Vulture flushed from two fresh eggs. A half mile away a Red-tailed Hawk was seen sitting on her nest in the top of a large beech; the nest was found to contain but one egg. Along the river, two Solitary Sandpipers and an Osprey were seen. A trip to Lewis County on April 22, returning via Columbia, netted me my earliest record for the Bob-o-link; four were seen in a clover field and there may have been more. A Solitary Sandpiper, a Lesser Yellow-legs, and a Wilson's Snipe were seen at small ponds en route. At a Hohenwald church, at noon, a flock of 200 Swifts were warming themselves in the heated air which came from a chimney. The weather was chilly and a drizzling rain was falling. A breeze blew the heat off to one side and the Swifts would circle until they felt it. They would then drift slowly along through the current of warm air until they passed over the top of the chimney. This was repeated many times while I watched. Carolina Wrens often choose queer places to nest. On May 6, at my place on Stone's River, a pair built in the bottom of an empty ash can which had been placed on the ground in an open place. There was no top on the can. Later, one young was drowned inside after a heavy rain, but the others got off all right. Their next nest was on a shelf in the kitchen, entering the house through an actic window. Visited Reelfoot Lake on May 13; for notes, see Woodring's writeup above. On May 19, waded the marsh 7 miles north of Springfield with Calhoun, where we found and photographed two nests of the King Rail, containing 11 and 13 eggs, respectively. These are the first nests with eggs to be found of this species in Middle Tennessee. A Sora Rail was flushed in this 8-acre marsh; probably a transient. Redwings, Green Herons and Prothonotary Warblers were the other marsh-loving birds present. Returning, at sundown, we stopped to observe a large bird roost in two dense sugar maples in a roadside yard. Entering the thick foliage were Purple Martins, Robins, Grackles, Cowbirds, English Sparrows and Redwings, in the order given to the number of several thousands. The Buena Vista slough in North Nashville has produced some good wading bird records this spring, as follows: Solitary Sandpiper, April 25 (1 noted); Spotted Sandpiper, May 6 (1), 17 (1), 22 (2), 23 (2); Least Sandpiper, May 6 (6), collected one of them on May 8; Semipalmated Sandpiper, May 22 (6), 23 (30), collected one; Semipalmated Plover, May 17 (9), May 23 (5); Wilson's Snipe, April 25 (1); King Rail, May 23 (1); Lesser Yellowlegs, April 25 (12); May 5 (19), and Greater Yellowlegs, April 28 (4 reported here by Mayfield). On May 20, with Mayfield and Campbell, revisited Mingo Swamp and Long Pond in Franklin County (see *The Migrant*, September, 1933). In a marshy meadow, grown with rushes, broomsedge and briars, we found a Short-billed Marsh Wren which played hide and seek with us at a distance of only 6 or 8 feet. This species may possibly breed here, but we could find no nest nearby. The small open pond in Mingo was without birds except for a few Redwings, a pair of Green Herons, a Great Blue flying over, and a pair of Red-shouldered Hawks. Two nests of the Harvest Mouse were found here containing young. They were round balls of grass, built in the sedge above water standing three inches deep. At a small pond in the north end of the swamp we found a Yellow-crowned Night Heron, it being the first summer record for this section. Prothonotary Warblers were seen and heard nearby. At Long Pond, 3 miles southeast, we heard an American Bittern "pumping." Wading into the two-acre arm, thickly grown with button bushes, willows and wild rice, I as unable to find its nest. Two nests of the Green Heron each held 5 eggs and there were many nests of the Redwing Blackbird just finished. After finding two last-year's nests of the Pied-billed Grebe, I was much pleased to wade into an occupied nest containing 5 fresh eggs. The bird had not covered them when it left the nest, as it usually does. This is the first nest with eggs of this Grebe to be found in Tennessee. May 27 was spent at Memphis; see notes by Mr. Coffey, above. On May 30, at Craggie Hope, I visited the Sharp-shinned Hawks which I first found nesting there in 1919. They were found to have nested in a pine by a used pathway, and the nest, still covered with down, was empty. I concluded that some one had shot the female and that crows had carried off the eggs. A second pair, located last winter two miles away, was found incubating a beautiful set of 5 eggs. Not 50 feet away was the nest of a Hooded Warbler, containing 4 young. This pine woods had been visited by a March fire which killed the undergrowth, so the warblers had built their nest in dead vines, 4 feet up, and entirely exposed to view. On May 1 and 2 Adams of Alpine and the writer visited a number of upland marshes in Putnam and Overton Counties. I regret to say that some of the best of these marshes had been drained recently. Our only waterbird find of interest was two pairs of Least Bitterns in a 2-acre pond covered with cat-tails and a nest of one of them containing 5 eggs. We did not visit Little's Pond, 7 miles north of Livingston, heretofore reported on as a breeding place for several species of waterbirds. June 10 was spent in Fentress County. Four days of field work, June 5-8, inclusive, in Johnson County with Tyler, is described on page 21 of this issue.—**Albert F. Ganier, Nashville.**

EARLY NESTINGS: The following "first nests" were found this spring about my home in the suburbs on Graybar Lane. Towhee. April 8, 4 eggs, nest in a tuft of bluegrass at rear of lot. Bluebird, April 8, brooding 4 eggs in nest box. Cardinal, April 11, began incubating a set of 3 eggs in nect at breakfast room window. Bewicks Wren, April 10, laid first egg of set in gourd on garage. Mockingbird, April 12, found brooding a set of 4, in nest placed on exposed root of tree under overhanging creek bank—same situation as first nest of this yellow banded pair used last year. Mourning Dove, April 12, noted building. Brown Thrasher, April 12, laid first egg of a set in young cedar. Robin, April 13, laid first egg of a set in dead wild cherry at garage. Flickers nested in one of my nest boxes.—**Mrs. F. C. Laskey, Nashville.**

OWLS, HAWKS AND VULTURES: On February 4, I found a nest of the Great Horned Owl containing two fresh eggs. It was located forty feet above the ground in a broken-off dead oak in the Radnor lake hills. Two nests of the Red-tailed Hawk were visited on March 4 and the owners were at each nest. Climbing to one of these, which was situated on the border of an open field in plain view of a farmhouse, I found one fresh egg; a week later the bird was found sitting on three eggs. On this same day, March 11, a third Red-tailed Hawk's nest was found with the bird sitting on it. The first Red-tailed Hawk's nest found on March 4 was one-half mile distant from the other two, which in turn were one-quarter mile apart. These nests were near Vaughn's Gap. Fifty yards from the hawk's nest of March 11, a Black Vulture's nest on March 4 held two eggs that had been incubated several days. They had been laid under the limbs of a fallen tree on top of a ridge in thick woods. Because of the markings the eggs were taken for my collection. Passing here on April 14, I found that the birds had laid a second set which appeared to be well incubated. This time the nest was situated in a stump fifteen yards nearer the hawk's nest. In spite of the fact that February and March were much colder than normal, the nests of the hawks were as early as the earliest I know of here and the Vulture within four days of the earliest.—**Jack Calhoun, Nashville.**

A TWICE USED NEST:—Near my home this spring a White-eyed Vireo used the same nest in which she had reared a brood last year. This nest was in a hawthorn tree about three feet above the ground, and was attached to the limb on three sides instead of the usual two. It was protected overhead by a thick mat of vines and was noted in the early spring to be in good condition. It was so well preserved that the birds had only to add a little lining material. Four eggs were laid which hatched May 18 and the young birds left the nest successfully. The old nest is still in good condition. I have never before heard of a vireo using an old nest.—**Jack Calhoun, Nashville.**

RAISING A COVEY OF QUAIL: My opinion of raising Bob-white in captivity is that is is a most interesting experience for one but a serious and dangerous course of training for the birds. In June, 1933, a nest of eleven eggs was brought to me, it having been cut over while mowing hay I placed them under a sitting Buff Cochin Bantam hen and they all hatched in a few days. She mothered them well, losing only three. The other eight became very tame—for wild things—and would come shyly at a certain call we made. They roosted with their foster-mother in a coop made proof against small animals until they were seven weeks old, after which the little hen left them and went to roost in the hen house. The little Bob-white returned each evening for some time to roost in the coop, which I closed carefully each night. In roosting, they arranged themselves in a circle, with heads out, after the manner of old quail, doing so instinctively, for they had no old birds to teach them. Finally they ceased to come to the coop to roost but would appear early in the mornings and feed with the chickens and guineas about the barn. They showed no fear of man, dogs or cats. When seven weeks old, on July 25, they were banded with bands A462336 to A462343. Late in August they began to disappear, one by one, until finally only four came to feed. I found number 339 dead in the pasture next to where it was raised but no indication of what killed it. Number 337 was killed by a negro man with a rock, as it entered a neighbor's chicken yard. What became of the rest of them I do not know, but it would seem they had never learned the art of taking care of themselves and of avoiding danger.

On April 26, 1934, four Bob-white entered my yard from where I had raised those last year. They walked about as though they felt at home and may have been the remnant of my little flock of last year. I could not see if there were bands on the legs due to the long grass, nor did I attempt to trap them for fear of frightening them away.—**Mrs. Sandford Duncan, Nashville, Tenn.**

FORSTERS TERNS AT KNOXVILLE: On the afternoon of May 11, Mr. H. P. Ijams noted a flock of ten terns on the Tennessee River at the mouth of Williams Creek, opposite the municipal water plant above Knoxville. He called the writer and on close examination we were certain that they were either Common or Forsters Terns, so one was collected to establish positive identity. The flock of ten had been there since the afternoon of the 10th and they were very tame. As we paddled up to them they were resting on a large rock on one of the jetty bars and presenting a very pretty picture. Their tameness made the job of collecting one difficult, as they were in a compact group and did not fly until approached to with about twenty feet; however, one soon separated himself from the others and was collected. Upon being picked up and examined, it proved to be a Forsters Tern, *Sterna forsteri*. After the one was shot the other clustered around, uttering excited cries for a few moments, then flew off down the river and were not seen again.—**Jim Trent, Jr., Knoxville.**

Note: There are two previous records of this species at Knoxville. On April 27, 1922, a tern was shot at Hodges Pond, 10 miles west of Knoxville, and mounted. It was later identified by Dr. H. C. Oberholser as the Forsters Tern. Another specimen was taken April 30, 1933, on the Tennessee River above Knoxville and was identified by the U. S. Biological Survey. Data on these two birds was furnished by Messrs. Adams and Ijams of Knoxville. In certain plumages, this species very closely resembles the Common Tern, but the latter has not as yet been recorded in East Tennessee.—**A. F. G.**

A BACHMANS SPARROW NEST: A nest of this species was found near Johnson City on May 18, 1934. This sparrow lives in proximity to woodlands and, true to its reputation, the nest was found in an abandoned field overgrown sparsely with sedge grass, daisies and various weeds, on a hillside facing the west and about three hundred feet distant from heavy woods. It was built in a clump of grass and held a full clutch of five white eggs, nearly fresh. There was no arched over covering to this nest as is so often the case with this species, but the eggs could be plainly seen from above.

The Bachmans Sparrow has been known to nest here for many years, but it is generally overlooked on account of its inconspicuous plumage and retiring habits. The nest is of very interesting construction, being high on the back and sides and low in front where the bird enters. It is built upon the ground usually in a clump of dead grass. We have found these birds to return with regularity to their accustomed breeding grounds.—**Bruce P. Tyler and Robt. B. Lyle, Johnson City.**

* * *

The Tennessee Ornithological Society has recently become affiliated with the Tennessee Academy of Science and in that capacity will co-operate with the Academy in matters pertaining to ornithology. Our Society has for some years been affiliated with The Wilson Ornithological Club, a national organization and publishers of *The Wilson Bulletin*, one of the leading journals of bird life.

THE MIGRANT

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"The simple truth about birds is interesting enough,
it is not necessary to go beyond it."

SUMMER PROBLEMS

There is no idle season for the student of bird life. As the sparkle of spring gives way to the humdrum days of summer, some of us who have been on our toes to record the migrants and to peek into the nesting affairs of our feathered friends are inclined to feel that, in a way, the big show is over for the time being. Not so, however, for the true student; every season in a bird's life is an active one and if we would know their life histories, we must follow thru. The larger birds, with few exceptions, raise but one brood each year, for guarding their offspring from dangers and teaching them to shift for themselves consumes many weeks of the parents' time after the young have left the nest. With the smaller birds, however, two broods is the usual thing and some, such as the wrens, finches and doves, essay a third and occasionally a fourth brood. To what extent are these late broods successful, what percentage of our birds indudge in them, are not late summer drouths disastrous to the young? There is much that is yet to be learned about late nestings. In the matter of song—so universal in the early spring—how is it affected by the advent of Summer and when does it cease for the various species? To what extent do the family groups cling together, and do the males continue to defend their territory after the breeding season is over? During late Summer, birds are apparently scarce; why is it we see so few at that season? Are our birds as a whole decreasing, as some claim? Then there are the gregarious species, which begin to form roosts by midsummer. The location of these roosts may be ascertained by "sky-trailing" the birds at sundown. Their study is an absorbing subject during the late summer and early fall. In addition to Robins, Grackles, Cowbirds and Purple Martins, there are many other strange "bed-fellows" which tag along and drop in for a safe night's rest. For those who would aid the birds about their homes, nothing quite equals a supply of water for drinking and bathing. Home birds too will appreciate the maintenance of a feeding shelf and will bring their offspring along, thus affording one an opportunity to learn more of the family life of the birds about us.

Bird-banding can be profitably followed during the summer months, thus securing a more accurate check on their movements at that season and tagging them for future observations. We would conclude by saying that such experiences as you may have that interest you will doubtless interest others as well and you can hardly count yourself "square with the world" unless you write these up for publication. Your observations then will not only afford reading for the present but reference for the future.

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THE MIGRANT

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DEVOTED TO TENNESSEE BIRDS

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**September
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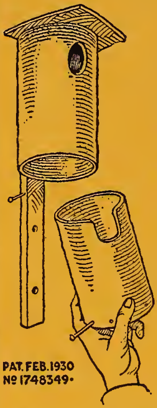

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THE MIGRANT

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HABITS OF THE WARBLING VIREO

By HARRY C. MONK.

As no one seems to have written on the habits of the Warbling Vireo in Tennessee the following sketch may be of interest. It is based upon general observations made over a period of years, chiefly in the Centennial Park colony, in Nashville.

The chosen haunts of this vireo are groves of medium sized trees growing about houses or in parks. Like the Robin this species clings to man's lawns and shade trees. Not many such situations are occupied by the birds as they are very locally distributed.

Spring arrival is in April, with the dates spread over the first three weeks of the month, in a period of years. Earliest is April 5, 1931. Usually but one or two birds are seen at first, with the remainder coming in soon after. One year however, five arrived on the same day.

There is much singing, chasing and quarreling among the birds following arrival. Some of this activity must be due to territorial disputes, but much of it may be ascribed to courtship. Little time is lost in settling down and nest building begins early. Some birds begin incubating within four weeks after arrival.

The nest is a typical vireo structure, a small basket suspended from a forked twig. It is quite distinct in appearance from the nests of other local breeding vireos, being expertly constructed of fine materials, the whole being smoothly felted together and remindful of the fabric of nests of the Yellow Warbler. It lacks the coarse fibers and looseness seen in the nest of the Red-eyed Vireo and the shaggy look of the White-eye's home. The bottom is almost flat and rather wide, the nest being shallow and with a contracted brim.

Nests are usually placed well out on a limb so that they swing free and have nothing beneath them. Only one of thirty-five recorded nests was invisible from beneath. One-fourth of this number were hung directly over roads. All were in deciduous trees, there being nine species in the list.

Height above ground of the nest varies much. While none have been measured, they appear to range from eight to forty feet in the air, with the majority below twenty-five feet. Several have been found so low that they could be examined from the running board of a car standing on the road under them.

Fresh sets of eggs have been found from May 5 to May 25 in different years, but the majority are laid in the first half of the month. In general, nesting dates correspond with migration dates and vary somewhat with different pairs.

A set contains three or four eggs. Five nests held four eggs each, and four nests contained three eggs apiece. Only one brood is reared in a season as far as is known. Nests that have met with an accident are quickly replaced in a neighboring tree.

The young remain in the nest about two weeks. In one case where the date of hatching was known the birds left the nest on the fifteenth day. It has been difficult to learn much about family life after the nest is vacated. The fledglings are known to remain with their parents for two weeks and doubtless receive some care for a longer period. No dependent young have been seen after July in any year.

The majority of these birds remain in their nesting locality throughout their stay here, but a few wander about in late summer. They regularly appear in the trees about the writer's home, nearly a half mile from the nesting colony.

Departure takes place in September and most of the last dates are in the first half of that month. These last birds are often heard singing in fair voice. Latest fall date is September 25, 1934.

NASHVILLE, TENN., Sept., 1934.

* * *

TENNESSEE'S PROGRAM FOR WILD LIFE RESTORATION

By DAMON HEADDEN, State Game Warden.

The purpose of the Department of Game and Fish of Tennessee is to save and increase the valuable wild life of the State. We who constitute the personnel of the Department at this time have projected a definite program to the end that a basis may be established upon which may be built a self-perpetuating system. Our greatest need in bringing this primary program to fulfillment is the co-operation of the people of Tennessee.

Our program calls first for the enactment of laws which give adequate protection to the game and fish of Tennessee. Second comes proper enforcement of these laws. Next on the program is the restocking plan. We have gone into this feature of the program with considerable expenditures after careful consideration. In the past, many thousands of quail have been bought in Mexico and Virginia and planted in the Tennessee cover. Now, however, we have three quail hatcheries, all operating successfully, so that this year and next spring we shall be able to plant more than twice as many quail from the hatcheries as we have bought in any year.

Fish hatcheries are located at Morristown and Springfield. From them we have removed hundreds of thousands of bream, bass and trout for placement in the streams and lakes of the State.

Placing of new stock of quail in suitable cover has already shown impressive result. Not in generations has Tennessee had so many quail in her fields and thickets as this year. The result of our stream and lake restocking will begin to show within a year or two. Our assumption is that in no state are the waters better adapted to fish propagation than in Tennessee. We propose to make Tennessee one of the nation's finest fishing states. We are placing deer in the forests where once there were great herds of them. We are restoring the wild turkey to river bottom and mountain cover. We are experimenting with the guinea fowl as a game bird, and our progress thus far has been encouraging. The guinea has shown an aptitude to atavism which is little short of astonishing. It is fast and wary. We are restocking red fox for the fox hunter in territory where the fox's presence is not offensive to the farmer. We are even taking care of the shortage of raccoons in 'coon hunting country. The Department co-operates fully with federal authorities in protecting migratory waterfowl.

Briefly, our program is founded upon a determination to strive for sufficient legislaton, to enforce the game and fish laws and to educate the people of Tennessee to conservation ideals. This last, we undertake to do through wide publicity, lectures, radio dissemination of information, local educational efforts of deputy game wardens, co-operation with conservation groups in various communities and, we hope, an eventual text book in a lower grade of the public schools of Tennessee. The program is financed by moneys paid in to the Department for license badges.

NASHVILLE, TENN., Sept., 1934.

* * *

SUMMER BIRDS ABOUT A COUNTRY HOME

By NANCY LEE MORGAN

This has been a wonderful summer for the study of bird life. At "Oaklee", the birds have held high carnival and I have gotten more thrills than one can imagine, grown more intimately acquainted with old bird friends and found many new and interesting ones. To really know and enjoy birds to the fullest, one must be an early riser. No music is more sweet to the ear of a bird lover than the sweet, low good-morning chirps or notes one hears just as dawn is breaking. Gradually the light comes, and then the whir of many wings as they dart in every direction. "Oaklee' is only a mile and a half from Columbia, and for years it has been a game preserve. Some of our neighbors became interested and joined us, so now there are several hundred acres under protection. One rarely hears a gun, and they are never fired upon this place. I always dread the coming of Dove season, for it opens much too early; there were young Doves in a nest in our trellis on Sept. 1st.

Birds are very responsive and soon find new feeding stations and baths. I have come to the conclusion they love people and human habitations. They certainly feel secure here, for when we are sitting upon the porch they fly over our heads, taking a short cut, and do not seem in the least disturbed by our presence. I have a bird bath, an 18 inch disc plow, placed about four feet high in the center of the lawn, another fifteen or twenty feet from the house to the right, and still another to the left. A large pool and other discs are in the flower garden, so they have plenty of water. These are used constantly and enjoyed. Only yesterday, when I opened the front door I counted seven Bluebirds frolicking like children in one, not minding in the least and undisturbed when I took a seat not ten feet away. There were others in an oak above. The Mockingbirds leave me for about three weeks in August. They fold their tents like the Arabs and steal silently away, to the thickets I suppose. I have missed them; then some early morning I hear their greetings at the sun, and behold! There they are, in the beauty of new plumage, the perfection of grace and their trying period of moulting is over until another year.

When I hear an unfamiliar note I go out with my field glasses and quietly wait until I can locate the bird. I wait for the call or song, watch closely, see and hear; in most cases the bird and note remain firmly fixed in my mind. When possible I repeat the lesson and it is most interesting. I have six feeding stations around the home and they are all well patronized. Three are upstairs and three down and all can be filled from indoors. Those downstairs are the tops of round cheese boxes, painted green and set upon iron pipes so as to be secure from cats. The feeding station at my upstairs window I believe is the most popular and it is so placed that I can remain in bed, and watch the birds upon it. I am in the habit of putting out the feed before I retire. Sometimes, not often, I forget and when I do, the Downy Woodpecker knocks loudly on the shelf in protest.

The Blue Jays make morning hideous sometimes. I think the Creator must have given them their beautiful plumage to compensate for mean dispositions and shrill voices. When the weather is dry and water runs low, I have noticed we have more unusual bird callers. Water seems more important to them than food; it certainly attracts them more certainly than does any food I have found. We each have one favorite bird. My little granddaughter, age five, knows many birds by sight and note. In the Spring she watched a little Carolina Chickadee make many trips to a hole in a gate post, bringing up sawdust, getting ready for housekeeping. She was so afraid something might disturb the bird she did not tell for several days. We have a large wild cherry tree in the front yard near the house. It had a heavy crop of cherries this summer and for many weeks was filled with birds of varied sorts. I would not venture to say how many birds dined upon those very large luscious cherries. The beautiful Brown Thrasher was the greatest drunkard among them. The others seemed to get by but the Thrasher would often fall from the tree, then stagger under a nearby shrub, there to sleep off the drunk, I suppose. I have often picked them up and kept them safely over night. The effect of the wild chrries on these birds is believed to be due to the presence of prussic acid in the fruit.

After the first mowing of the lawn I found a nest full of Quail eggs in a clump of yucca. I watched careully but the birds deserted it. The eggs remained for several weeks and what finally became of them I do not know; one morning all were gone. We have always had quail about the place and when I fed the chickens they often fed with them at my feet. On going into the flower garden one often hears the whir of many wings as they rise and fly to an alfalfa field beyond. This summer I had five quail nests only a few feet from the house, including one under a shrub against the house. The premises looked rather unkept for I would not allow the grass to be cut for fear of disturbing the birds. One Quail nest especially interested me. Upon the ground under a large oak very near the house, I found a nest with seventeen eggs. We had often sat upon an iron bench near the gazing globe and bird bath but fortunately this summer there flourished poison ivy and I cautioned the children and others to keep away from this special place. There in a nest of ivy leaves I found the eggs. I could watch it from a window above. I well remember the day the little ones came off, we had house guest but I would steal out and listen. How I wish I could reproduce sound! I have never heard or read anything like the notes of ecstasy that came from the throats of those two parents. Beautiful, clear. caressing, and unlike anything of which I ever dreamed. I had read that they left the nest so soon they often carried pieces of shell upon their backs. This must be true, for all around the nest, many feet away, there were shells and only tiny pieces in the nest.

Year after year the Orioles build in pear trees near our back porch. Last year a pair built a nest in a hackberry tree so near the porch we would watch the young and see how the busy old birds were. Their business in life is just feeding their young. We have a great many berry-bearing shrubs and trees on the place and all elder and pokeberry plants are allowed to mature in fence rows so as to furnish food for the birds. In spite of this, the birds seem to visit the feeding stations quite as often in summer as in winter. In fact, there is no dull season at Oaklee. It is no uncommon sight to count ten or twelve different kinds of birds for breakfast. In winter I kept out a supply of suet. which they greatly relished. When the bird baths are hard frozen, I put bowls of water at feeding stations. They have to be closely watched for they too often freeze, but this is little trouble to one who really loves birds. The Mockingbird is certainly the cock of the walk. When he visits the feeding stations, the other birds stand by and wait until he finishes his meal. Even the bully of a Jay plays second fiddle. We have a great many Mockingbirds about the place; I often count nine or ten at one time at the baths.

They are building a splendid highway from town by our place. The road for several months has been in almost an impassable condition and only those whose business compel them to, travel it. Our friends feel very sorry for us, so exiled, as it were. Our house is so located that we have a splendid view of wonderful sunsets, and such moonlight! August and September brought us great swarms of gorgeous butterflies. The nights have been glorious with meteoric showers, and Venus, large, brilliant and beautiful beyond words, charmed us nightly. The garden is filled with the beauty of bloom, and at night the atmosphere is fragrant with the perfume of many flowers. Above all there is the sight and song of many birds about us. With Nature so generous and beautiful, I think we are to be envied rather than pitied.

"OAKLEE," COLUMBIA, TENN.

* * *

SOME OBSERVATIONS ON DUCKS

By GEORGE B. WOODRING.

Ducks to many students of bird life offer as great a problem of identification as do the sparrows and the warblers. Some are content to learn only the three or four of the more common species. With this in mind I will give some pointers that may enable them to identify a few more. Along with the large order of Anseriformes, which include the ducks and geese, comes the order of Grebes, Cormorants, and Loons; the whole group usually being spoken of as wild fowl.

Tennessee is so situated geographically and has so few lakes that the average bird student in Middle and East Tennessee finds but little opportunity to study this interesting group of birds. However, in the western part of the state, the Mississippi River, Reelfoot Lake, Open Lake, and others are regular havens for the water fowls during migration, and at times are to be found there in countless thousands. The Mississippi River valley is the route over which an immense number of water birds travel. A few artficial lakes and the smaller rivers are the only attraction to ducks to other parts of Tennessee.

For several years the Mergansers, Buffiehead, Goldeneye, and many others, were entirely foreign to me until I decided that they too, could be learned. Radnor Lake, an artificial body of water covering about seventy-five acres and eight miles south of Nashville, became my favorite location for the fall and winter of 1933 and '34. Trips to this lake were made regularly every Sunday morning for six months regardless of weather conditions. As a result of these regular observations, I have come to believe that ducks are the easiest group of birds to study and identify. Usually, if the observer is careful, they will sit placidly upon the water affording him ample time for study. One of the first observations made was that some of the ducks fed by diving beneath the surface for food and others merely dabbled in shallow water near the shore. Close observation of their feeding habits helps greatly in identification of a species. To the first group I have given the name "Scaup Group", including in it all diving ducks and to the second, was given the name "Mallard Group", which included those ducks that are to be found feeding at the edge of the lake. After this large simple grouping has become fixed in the mind, then perhaps the size of the bird and the color becomes next in importance. As a general rule the smaller ducks belong to the "Scaup Group"; however, there are a few exceptions such as the large Canvas-back and the Redhead. The smaller diving ducks are the Lesser Scaup, Ringnecked, Golden-eye, Bufflehead, and Hooded Merganser. Into the "Mallard Group" falls the abundant Mallard or Green Head, Black Duck, Pintail, Baldpate, Shoveler, Blue and Green-winged Teal, and Wood Duck. The last three named are the exceptions to the large surface-feeding ducks, as they are all rather small in size. The exact coloring of each species can be found by reference to one or more of the several sets of colored plates now to be had. With the aid of a 6 power or stronger field glass, or even a telescope, they can be brought relatively close to the observer.

After identification is mastered, there comes a still more interesting phase of the study, which is their habits. As in all other species of birds, each has its particular way of doing things, whether it be flying, feeding, diving, fighting or nesting. When one has learned these individual traits, it becomes a great aid in making identity more certain. By putting down in writing, such traits we may fill in gaps in the life history of each species which observers to the north of us do not witness. An extract from my notebook covers a feeding habit of the Snow and Blue Geese which were released on Radnor Lake last autumn with wing feathers clipped. On March 4th, all seven of these geese were seen feeding on the grassy slope where the water had receded and left the dead grass about four feet from the water edge. Each goose would pull the dry grass up by the roots, walk to the edge of the water, wash the dirt from the roots and proceed to eat it. This process was watched for about an hour until they had cleared all of the grass from the slope.

Another page from my notebook, taken on a mid-winter visit, reads as follows: "Feb. 12th, a bright morning, the temperature about 40 degrees. A Golden-eye spreads his tail in a fan shape when starting his lunge forward for the dive and remains under the water about 80 seconds. It preens its feathers while floating on the water, turning well over on its side enough to expose its belly. They are feeding in the deepest part of the lake, by diving from the surface, along with ten Lesser Scaup. While watching them, a Cooper's Hawk flew over the flock; two sharp calls were given by the ducks and all feeding ceased, the entire flock turned to face the direction of the hawk."

The present season has been a very hard one for the water fowls, for the reason that most of them breed in the northwest plain states where during their nesting season, the most disastrous drouth on record dried up most of the prairie sloughs and small lakes. The hunting season throughout the country has been curtailed to thirty days—three days a week for ten weeks—but conservationists say the ducks really should have a closed season. Duck hunting may be a thing of the past within another generation if not even sooner.

NASHVILLE, TENN., Sept., 1934.

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BIRD BANDING BREVITIES—NO. 2

By MRS. F. C. LASKEY.

The first Catbird trapped at my station, banded as an adult in August, 1931, was retaken April 23, 1932, April 24, 1933, and this year on June 21st. A Maryland Yellowthroat banded Sept. 9, 1932, returned in 1933 and was recaptured again in June, 1934. This Spring, from Feb. 11th to March 4th, about 200 Starlings were banded and by May 20th reports were received on 5 of that number; 3 had been killed near by (Nashville, Old Hickory, and Wilson County) but one, banded Feb. 24, 1934, was shot April 27, 1934, at Dunkirk, N. Y. A delayed report has been received from the Bureau of

Biological Survey of a Dove banded June 7, 1933, and shot in November, 1933, 7 miles south of Milford, Ga. Looking over the records of the 1150 Field Sparrows banded to date, it is quite evident this species is the most persistent "repeating" groups at my station and in springtime, some of them have been trapped with unusual frequency. In 85 consecutive days, one was taken 84 times; another in 58 days, 122 times; another in 79 days, 164 times. A Chipping Sparrow almost lived in the trap for a while, it having been removed 132 times in 55 days (April 4 to May 29). In 1933, Mockingbirds began their autumn movement much earlier than this year in this area. New birds began to arrive at the station in August of 1933; this year not until September. Records of 1933 show 76 banded between August 7 and Sept. 25, 1933, and only 8 from Sept. 12th to Sept. 25, 1934. The frequent rains and heavy dews this season are doubtless influencing factors in this decrease in numbers. Last year the water traps were responsible for a large percentage of the captures. The Warbler catch this season is far below that of last year, presumably for the same reason. This Fall Jack Calhoun was able to trap 17 Towhees for banding in one week at a substation 100 feet from his home in the West End section of Nashville. My total number of birds banded now is 4,184; species, 73.

NASHVILLE, TENN., September, 1934.

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WILSONS AND AUDUBONS WORKS IN TENNESSEE LIBRARIES

A canvass of all large libraries in the State and inquiries among our members has enabled us to prepare the following list of the above mentioned works. These two authors produced the first comprehensive works on the birds of North America and their first editions were of such a sumptuous character that in many respects they remain unsurpassed.

Alexander Wilson (1766-1813), generally spoken of as the "Father of American Ornithology," began publication of his work entitled **The Natural History of the Birds of the United States**, in 1808. On his death, in 1813, he had produced seven of the nine volumes comprising this first edition. The eighth and ninth, completed by Ord after Wilson's death and largely from Wilson's manuscripts, came out in 1814. In this work there were 76 large plates, reproduced by steel engraving and colored by hand. Only one volume of this original edition is known to be in Tennessee and it may have a most interesting history. It is volume two, published Jan. 1, 1810, and is in the library of Peabody College at Nashville. It is said to have come from the effects of old University of Nashville, founded as an academy in 1785. There is a strong probability that this volume was left in Nashville by Wilson himself when he visited the town in May, 1810. On that trip he carried samples of the two volumes already issue, for the purpose of soliciting subscribers to his work. Southward as far as Nashville he had been able to forward his baggage by coach but from Nashville on to Natchez there was only a horseback trail. He therefore rid himself of all baggage that he could not carry on his saddle horse and doubtless any extra samples he may have had were disposed of. There are no inscriptions in this volume to give its history. The next set of Wilson's work to be printed came out in 1828 and consisted of three volumes of text and a portfolio of seventy-six colored plates. There is a set of this edition in the State Library at Nashville, it having been acquired from Cooley's Book Store several years ago. Mr. L. R. Campbell of Nashville also has a set of this edition. The Cossitt Library of Memphis, Vanderbilt University, and A. C. Webb of Nashville own editions, produced about 1870, consisting of three volumes of text and a portfolio of 103 engraved plates. Still other late editions are owned by A. F. Ganier and G. R. Mayfield of Nashville.

James John Audubon (1770-1851), an accomplished painter and a born naturalist, succeeded Wilson as the Nation's greatest ornithologist. With the latter's work as a beacon, he set himself to the task of surpassing it and the first installment of plates of his famous **Birds of America** was brought out in 1827, followed by 86 other "parts," until the series of 435 plates was completed in 1838. This was followed in 1831-39 by his **Ornithological Biography,** which described the birds figured on the plates. On account of their large size, these plates are known as the elephant-folio edition. No set is known to exist in Tennessee, although two of the large plates are hung in the Biology Library of Vanderbilt University. There are three sets of the later editions at Nashville and three elsewhere in Tennessee, as follows: The State Library has **The Birds of America,** 7 vols., 8 vo., N. Y. 1840. On the fly leaf of volume one of this set is written in pencil, "Tennessee State Library, 1854, 7 vols. from Little and Brown, Boston, $80.00." This edition now brings around $400.00. The Vanderbilt University Library and the Carnegie Library at Nashville each have the edition of 1856, in 7 vols., 8 vo., N. Y., the Cossitt Library at Memphis has the edition of 1870, the last one issued, in 8 volumes, and there is a set at the Columbia Institute at Columbia. The Vanderbilt set was formerly owned by the late Felix Ewing of Cedar Hill. We have recently learned on good authority that still another set of Audubon is stored at Knoxville along with other effects of an estate which cannot be dismembered for some years.

In the State Library at the Capitol may also be seen Audubon and Bachman's **The Quadrupeds of North America,** in 3 vols., illustrated with 155 colored plates, 8 vo., N. Y., 1856.

All of these famous volumes will afford a treat to those of our members who will take a few hours to look them over.—A. F. G.

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THE ROUND TABLE

A HUDSONIAN CURLEW AT MEMPHIS: A single bird of this species was observed on July 8, 1934, at Mud Lake, south of Memphis near the Mississippi line. He flew southward into Mississippi, giving a clear penetrating call, and did not return. The bird had been feeding at the shore in the soft mud flats which bordered the now shallow lake, in company with a large assemblage of shorebirds. It flew up with a group of them and rather leisurely winged its way across in front of us at a distance of 100 feet. With the benefit of binoculars and sunlight behind us, we could view it perfectly and note its profile, including the long down-curved bill. Its size was a little smaller than a pigeon and its build was that of a Woodcock. It was by no means as large the western Long-billed Curlew nor was its bill so long. We examined all color plates and descriptions on our return and decided it could be nothing else. There are very few recent records of this now rare bird in the Mississippi Valley region and the one here recorded is the first for Tennessee. A similar species, the Esquimaux Curlew, is now extinct.

Associated with the Curlew on the mud flats were Kildeer 100, Lesser Yellowlegs 8, Solitary Sandpiper 5, Least Sandpiper 3 and Spotted Sandpiper 1. Along the shores or flying about, were also noted, Ward's Heron 8, Little Blue Heron 10 adults and 190 immatures in white plumage, American Egret 10, Yellow-crowned Night Heron 1 (immature), Wood Duck 4 (in eclipse plumage), Duck (species ?) flock of 14 flying overhead, Double-crested Cormorant 4 and Least Tern 3. It was truly a wonderful assemblage of water birds. With us were Mrs. Coffey, Frank McCamey and Fred Carney.—**A. F. Ganier, Nashville, and Ben B. Coffey, Memphis.**

A WOODCOCK'S SONG: At dusk, on the evening of March 4th, we were returning from a day of tiring search for Yellowlegs and other early migrants, when I made my first acquaintance with a Woodcock. We had slowed the car down, near the water filled barrow pits back of the levee, and soon among the chorus of hylas and tree frogs we caught a strange note. All ears strained to catch it again. There it was! *Bzzzt!* Piling out of the car, we crashed toward the sound, thru the tangle of vines and bushes along the road. There it was again! It greatly resembled the rasping note of the Nighthawk. But we approached too close, and a shadowy, snipe-like bird arose and flew farther away. Following thru weeds and water, we came near the spot from whence the last note had come. But the strange call now vibrated from another direction. We started stealthily toward it, but the bird this time winged his shadowy way toward us. We glimpsed the silhouette of his indistinct form as he swung around between us and the glowing West. Barely able to discern his form as his whistling wings carried him ever higher above our heads, we suddenly thought of the Woodcock. That must be the identity of this strange bird. The bird was out of sight and hearing now, and we waited in the semi-darkness, a cold wind bearing down upon us, and our feet, wet from previous wading, beginning to numb from the cold ground. Suddenly a strange, beautiful song burst out from the unseen bird far above our heads. The melody circled about and we glimpsed its maker again, as he glided down on set wings thru the dying light. Then, plunging noisily to the ground, he took up his ear splitting "*Bzzzt*" again, near where we stood. As we waited, he went thru this unusual performance three times, as if for our special benefit. Then he took wing and flew off over the bushes into the night, leaving six pleased bird students with a thrilling new experience to keep in their memories.—**Franklin McCamey, Memphis.**

ANOTHER WHISTLING SWAN RECORD FOR REELFOOT LAKE: Since the numbers of the Whistling Swan, *Cygnus columbianus*, have become so depleted that one is a rare sight in the Mississippi Valley, it seems important that all recent records of the species be preserved.

The writer was informed by Mr. O. T. Wollaston of Walnut Log that on November 24, 1932, one of these birds was shot in the lily fields just east of Upper Blue Basin, Reelfoot Lake, by an unnamed hunter, who supposed it to be a snow goose. The swan was examined by a number of hunters at Walnut Log Lodge, and its identity was verified by reference to a bird manual.

The hunter's guide on the occasion, Carlyle, interviewed independently by the writer, repeated Mr. Wollaston's story of the shooting. He also supplied the definite date given above. Mr. Wollaston recalled it as "late November, 1932". The hunter carried the specimen to his home, intending to have it mounted, according to Carlyle.

There seems to be little doubt as to the validity of this record. The only bird with which an experienced duck and goose hunter might confuse the Whistling Swan is the still rarer Trumpeter Swan, of which there is no published record for Tennessee.—**Compton Crook, Boone. N. C.**

JUNE NOTES FROM REELFOOT LAKE: On an ornithological auto-camping trip which Mr. Coit Coker and I made this summer out to the west coast and back, Reelfoot Lake was one of the most unique places that we visited. Although we spent but half the day of June 23 out on the lake at Walnut Log we were more than impressed with this unusual body of water and particularly its bird life. The great abundance of Prothonotary Warblers was particularly thrilling to us inhabitants of the hills. American Egrets, Double-crested Cormorants, and Coots were plentiful. Several Bald Eagles, one or two adult Little-blue Herons, a small group of Pied-billed Grebes—perhaps a family which probably bred on the lake or very near it, were among some 45 species which we recorded during our little boat ride. The prize of all, tho, was the actions of a female Least Tern which completely fooled us. She acted so much like a young bird, continually crying and being fed by the male, reluctantly leaving her perch when we drew near only to flutter to another nearby, that had we not later been informed that the Least Tern does not lay until well into June, we would have marked them down as parent and young instead of spoiled wife and hen-pecked husband!—**Eugene P. Odum, Chapel Hill, N. C.**

AN AUGUST LIST FROM REELFOOT LAKE: It may be of interest to report on my recent trip to Walnut Log, Reelfoot Lake, Tenn., August 24th thru 30th. The accompaning list is shown in relative numbers and not by the actual count. (A) indicates Abundant; (C) Common; (F.C.) Fairly Common and (S) Several. The species noted on or about the lake were American Egret (A), Little Blue Heron (immature) (A), Green Heron (A), Great Blue Heron (Ward's) (A), Double-crested Cormorant (C), Pied-billed Grebe (C), Least Bittern (C), Wood Duck (C), Coot (C), Florida Gallinule (C), Sora Rail 1, Rough-winged Swallow (A), Purple Martin (F C), Black-crowned Night Heron (one flock) (12), Kingfisher (C), Red-wing Blackbird (C), Bronzed Grackle (C), Least Tern (S), Lesser Yellow-legs (2), Wood Pewee (C), Cardinal (C), Maryland Yellow-throat (C), Carolina Chickadee (C), Summer Tanager (C), Pileated Woodpecker (C), Red-bellied Woodpecker (A), Barred Owl (S), Great Horned Owl 1, Yellow-billed Cuckoo (C), Prothonotary Warbler (S), and Sycamore Warbler (1).—**Paul D. Harwood, College Park, Maryland.**

WOOD IBIS IN HENRY COUNTY: About August 15th, a flock of twenty of these birds were seen near Paris and one of them, which was shot by a farmer, was brought to town. A party who measured it stated that the wing-spread was six feet and the length of bill was nine inches. Its plumage was mostly white with some black. On August 16th, another one of the birds, from a flock of about twenty and presumably the same flock, was taken about fifteen miles from where they were first seen. This specimen was given to me but was in such condition that it could not be preserved. This is the first record of the Wood Ibis that I know of in this vicinity. Incidentally, this occurrence illustrates the need for teaching conservation to the general public to prevent their shooting large and harmless birds merely to satisfy their curiosity.—**Buster Thompson, Paris.**

STARLINGS WESTWARD: In the last part of June I was in McKenzie and with Rev. George L. Johnson, I verified the nesting of the Starlings in the wall of Shiloh Church and in the hollow limbs of an oak tree at the home of Mrs. Robbie Thomas. We also found them nesting on the campus of Bethel College. Mr. Huley Pugh assured me that he saw the Starling in the nesting season of 1933, going in and out of a hole in a telephone pole near my old home in McKenzie. When we went to examine the pole the telephone company had replaced it during the winter. I think there is no doubt however that the Starlings nested there in 1933. The first week of August of this year I was roaming over the farm of my boyhood home, one and one half miles northwest of Guntown, Mississippi, and I saw a pair of Starlings. Mr. Whittaker, who lives at the old home, was very much interested in them and called my attention to them. He showed me where they had nested in a side of the house where the weather-boarding had fallen off. This is about forty miles below the Tennessee line. A few days later at Corinth, Miss., I saw a number of Starlings which seemed to radiate from the Reubel Building and Mr. Warriner told me that they had nested there in numbers this year.—**Jas. A. Robins, Nashville.**

AN OSPREY NOTE: Reed's Bird Guide says, "The Osprey is protected by law in some states, and by public sentiment in most others." I am afraid that the poor 'fish hawk' gets but little protection anywhere—law or no law. The very name by which he is commonly known arouses animosity, and the average man will kill the bird on the theory that he is destructve of fish. But my argument is that because of his beauty, grace and skill, he deserves to live. Of all the birds I know the Osprey is the most spectacular, and in some ways the most courageous. It was only yesterday that I watched one at Waukomis Lake. During the entire day he searched for food. Time and again he dropped a hundred feet or more from mid-air, like a leaden ball, into the water for prey. The lake was rough from a high wind, consequently the Osprey had no luck at all so far as I could tell from close watching. Late in the afternoon, he came close to my boat; he was perhaps two hundred feet up. He paused dead still, then straight down he came. When he rose from the water he carried a black object which I could not at first identify. Then I could see—a turtle some six or seven inches across. The Osprey fought desperately to hold his victim, but of course the turtle's bony covering prevented the bird's claws from penetrating below the surface. Suddenly he lost his hold and the turtle came down hard upon a big stump, and bounced off into the water. I am sure the turtle sank to the bottom dead, for he had fallen more than one hundred feet.—**Benjamin R. Warriner, Corinth, Miss.**

FALL WARBLER MIGRATION, 1934: For the past five years the writer has kept almost daily records, in September and October, for the warblers that come to Idlewild Wood, which is located on Stones River a mile south of Stewart's Ferry bridge. This area consists of a wooded tract of twenty-five acres overlooking the valley of Stones River. Adjoining it is a cultivated field and a swampy area grown rankly with ragweed and small willows. Almost every species of warbler can find suitable cover and food in this territory. The autumn migratory flight has been very disappointing so far. From my return from the East on Sept. 12, to Oct. 8, the report is as follows: The Canada Warbler, the Wilsons Warbler and the Parula Warbler have not been recorded as yet. The first two are usually found fairly common while the last species is generally recorded once or more times at this season. The Black-and-White, the Sycamore, the Maryland Yellowthroat, the Redstart and the Ovenbird, show about 50% of their usual numbers. The Bay-breasted, Black-throated Green, Chestnut-sided, Magnolia and the Tennessee, about 75%. Only the Blackburnian and the Myrtle (first date Oct. 6) show numbers up to the average. It is possible that some of the above species are lagging behind in their southward movement due to the unusually green condition of the woodlands in Tennessee and to the north of us. Ample rainfall has produced a "late Fall" and October may bring us more than our usual number of warblers. Comparing notes with several other Nashville observers, I find that their experience has been the same. Transient vireos have also been unusually scarce.—**G. R. Mayfield, Nashville.**

ROOSTING NOTES: Under abnormal weather conditions the roosting flight of the Chimney Swifts vary. On a rainy afternoon in September, the Swifts gathered a half an hour earlier than usual. They milled about with no orderly formation whatsoever and at nearly dark they all tried to fly into the chimney at once. A week later, on a clear afternoon, this same roost at Clemons School was again watched. On this occasion the Swifts gave a beautiful example of their typical roosting flight. In a large circle they swept by the chimney and the direction of the circle would change from time to time in a soldierly fashion. This change in direction was brought about by a few leaders changing direction until all had followed suit. As darkness approached, a few at a time dropped into the chimney. There were about five thousand in this colony. Two other roosts are not far away. One of about two thousand at the Belmont Baptist Church, the other of about three thousand at Ward-Belmont College in a cold air shaft. The latter colony has come back both fall and spring for a number of years.

On Sept. 22nd, I accompanied Mr. Ganier to a blackbird roost at Franklin, Tenn. This roost was in maple trees and covered the entire east end of town. First the Bronzed Grackle with a few Cowbirds came in. Running them a close second were the Starlings. There were both mature and immature birds of all three species present. The numbers of these birds we were unable to estimate because only a restricted area could be seen at one time. Even so there were many thousands.—**Jack Calhoun, Nashville.**

BEWICKS WREN TRAGEDIES: A pair of Bewick's Wrens had chosen my basement entrance as a nice dry place in which to start house keeping. The ledge was wide enough, and sufficiently secluded from constant passing to enable them to use it for their nesting site. The nest was completed within a very short time, awaiting the deposit of the eggs. Days passed by but no eggs were to be seen. Each morning and evening the male bird would sit on the light wire that hung just above the entrance to the cellar and sing his little song, but no mate was in sight. In spite of the disappearance of the female, the male continued to take his perch and sing. This continued for ten days, then no more song. Passing by some low shrubbery one morning about this time, I noticed the feathers of the Bewick's Wren on the ground where the neighbor's cat had disposed of the female. After the disappearance of the male bird for five days, early one morning I was surprised to hear again that trilling note from the wire outside. Although the light of his life had gone out, he struck another match, and was back on the job to begin housekeeping with a new mate. Being late in the season and the nest being ready, and new, they decided not to delay matters further, but to use the ready-built nest and start at once to rear a family. Within two days there was one egg, then followed the other five in rapid succession. The brood was successful in the incubation and things progressed favorably for five days with both birds on hand each day feeding and singing in turn. Then came a lull. No song, no feeding, no birds were observed. An investigation revealed that all young birds were dead in the nest. Just what caused this tragedy will never be known. Perhaps the old birds were victims of the cat, or possibly some other enemy. Whatever the cause, this story goes to show how many failures there must be in the life of birds in the attempt to bring forth their progeny.—**H. S. Vaughn, Nashville.**

SUMMER NOTES, 1934: On July 16, I was shown 2 young Nighthawks on the roof of an 8 story downtown office building. They were about 2 weeks old. The door from the penthouse was kept locked and with only a slim steel ladder to the fire escape below, cats could not have reached the roof. Five days later, nothing could be found of the young birds but legs, wing tips and a few feathers. The mystery was probably solved a few days later when a Sparrow Hawk was seen cruising about in the air nearby. These little hawks probably get most of the young Nighthawks that hatch on downtown roofs. . . . . The Grackles mid-summer roost in Nashville was in a line of hackberry trees between Sunset and Westwood avenues. About Sept. 1, they shifted their roost to trees a mile westward but still in the city. With them are many Starlings and Cowbirds. . . . . The shorebirds are even scarcer than usual this Fall and some are back before they could have had time to nest in the far North. I believe they were turned back by the drouth belt in the Plains States. Attention is called to the list made at Memphis July 8, on another page. At or near Nashville the following shorebirds were listed: Solitary Sandpiper July 21 (2), July 28 (8), Aug. 3 (8), Aug. 11 (6), Aug. 12 (3), Sept. 8 (1), and Sept. 16 (2). Spotted Sandpiper Aug. 3 (4), Aug. 12 (3). Least Sandpiper, Aug. 3 (5), Aug. 21 (1). Semipalmated Sandpiper Sept. 16 (1).

Pectoral Sandpiper Aug. 3 (9), Aug. 11 (8), Aug. 21 (5). Lesser Yellowlegs Aug. 12 (6), Aug. 18 (2). Kildeer were found on each trip; on Aug. 3 on Donelson pond and surrounding pasture I counted 127 together. Radnor Lake was visited only on Sept. 16, else other shorebirds would have been recorded. On Aug. 12, with Calhoun, we canvassed the 12 stock ponds along the road from Guthrie to Clarksville and back to Cedar Hill. This is a sink-hole country and a number of the ponds cover more than an acre. In addition to the 4 shorebirds listed above on this date we observed 2 Amer. Egrets and 2 Little Blue Herons in white plumage. During a normal season our list should have been much larger. . . . . On Sept. 16, a flock of 12 Blue-winged Teal were seen at Radnor Lake, this being a very early date. . . . . An Upland Plover (*Bartramia longicauda*), the first I have recorded here, was seen on Aug. 3 in the North Nashville river bottoms. It was with a flock of 75 Kildeer in a bare field and permitted me to watch it leisurely with binoculars at 50 feet. . . . . On Sept. 11 a young Turkey Vulture was brought to town by a Negro, thinking it was a young Bald Eagle. It was in the perfect plumage of an adult but the head was still black except for a few indications of red here and there. It had been captured in a hay shed where it had been seen roosting for a week or more. . . . . A very late Chuck-wills-widow was flushed in Idlewild Wood on Sept. 23; Mayfield reports one there a week previous giving just a few calls at dusk. Several pair nest in these woods. . . . . Warblers and other transients have been noticeably scarce thru September. . . . . My 11 year old Cardinal and his mate, at my home, have now moulted into fresh plumage and are ready for the rigors of winter.—**A. F. Ganier, Nashville.**

AUTUMN BOBOLINKS: The scientific name *Dolichonyx oryzivorus*, indicates derivation from the Greek *dolichos*, long, and *onyx*, a claw, and the Latin *Oryza*, a genus of grasses, the principal member being the wild rice, and *vorare*, meaning to feed upon. Hence, the long-clawed bird that feeds upon the rice.

The Bobolink winters in central Brazil and migrates through the islands of the Caribbean Sea and the Gulf of Mexico, arriving in East Tennessee as early as April 26th. One seldom sees them more than once or twice in a season and then but sparingly. Here the Bobolink is only a migrant enroute to his breeding ground in northern Pennsylvania and New York to Nova Scotia and westward, extending his range constantly to the west, as man-made irrigation ditches make for him meadows which are congenial nesting grounds. The range is now extended to Northern California. The return trip to Brazil might be made through Southern Californa, Mexico and Central America without encountering the vast water hazard, but odd as it may seem, all reports show that he returns eastward and goes south mostly via the Eastern Shore, arriving in the rice fields of South Carolina with wonderful regularity about August 20th in vast numbers and takes heavy toll of the rice crop, the grain being then in the milky state. The reed bird depredations are estimated at 10% of the rice crop. A wonderfully delicous morsel, the plump breast of the "reed bird" as he is known in his fall migration, brings many thousand of them to the cooks' domains. In the autumnal migration the course followed is mostly via the Eastern Coast but this year something has happened to turn the birds through East Tennessee. On September 9th there were observed here two large flocks aggregating about two hundred and fifty birds, in the open fields feeding on weed seeds. The sight was unique, being the first that have been observed here at this season.—**Bruce P. Tyler, Johnson City.**

A BARN OWL'S NEST: On or about Jan. 17, 1934, I found a nest of the Barn Owl containing five fresh eggs. It was located several miles southeast of Franklin and about 50 yards from the Harpeth River. The birds had been reported in this vicinity for several years. The eggs were in a hollow beech tree which had been broken off about thirty feet above the ground and the eggs were about six feet below the top of this, lying on the rotted wood. I tried to capture the bird alive but it would leave the hollow when I had climbed about half way up. This was tried several times without success. Each time it was noted that the owl covered its eggs with the debris before leaving, so that they could not be seen. On my last visit, a boy who was with me climbed down into the cavity, uncovered the eggs and passed them out to me. These owls are considered rare in Williamson County.—**Clyde Redford, Franklin.**

ATTRACTING BIRDS AT CHATTANOOGA: For several years my wife and I have been spending our week ends in our log cabin overlooking the lake of the Chattanooga Rod & Gun Club. The property of the Club comprises one hundred and sixty acres, including the lake of about sixty-five acres. It is enclosed under high wire fence as it is posted as a state bird sanctuary. We put up several bird boxes, a feeding tray and always have beef suet in several locations convenient for our bird friends. Last spring three of our boxes were occupied; one by Titmice and the other, much to our delight, by a pair of Crested Flycatchers which were very shy at first but later became quite tame. A pair of Carolina Wrens decided on locating their nest inside our cabin under the eaves and were in reach of our hands. They were like part of our family. Each morning one or both of them searched the window panes inside for moths which had managed to get in the evening before. This was their early breakfast. When the female bird began sitting, the male brought her food, and, shortly after, he also made attempts to feed the young Flycatchers, which caused quite a deal of trouble. We know he succeeded in feeding them several times at least while the parent birds were off foraging but after a few short fights he was cured of the habit. Perhaps the parents did not approve of the Wren's formula for babies. Be that as it may, it was the first time I have ever noted a bird trying to feed the young of another species.

One other strange thing along this line was observed about a family of Tufted Titmice. After the first brood was hatched and out of the box, the parents returned and raised another. One day my wife called my attention to the fact that three and sometimes four Titmice were feeding this second brood. Apparently the parents had pressed into service several of the first birds hatched to help feed the new babies. Still another box was occupied by Bluebirds and they are still with us, coming to the cabin every morning shortly after sun-up. Besides the birds already named we have had Cardinals, Blue Jays, Pine Warblers, White-breasted Nuthatches, Downy Woodpeckers, Flickers, Chickadees, Brown Thrashers, Mockingbirds, Meadow Larks, Mourning Doves, Bob-whites, Chipping Sparrows, Wood Pewees, and many others. We find that we are well repaid for the efforts we have made to attract birds about the reservation and that it is indeed a delightful hobby as well as a most interesting study.—**E. Mel Wight, Chattanooga.**

A SOOTY TERN AT KNOXVILLE: A second Tennessee record for the Eastern Sooty Tern (*Sterna Fuscata fuscata*) was made at Knoxville, Tenn., on June 20, 1934. The bird, a young male, was picked up in an exhausted condition by Mrs. Henry McDaniel in her yard at 846 Hiwassee Ave. It died shortly afterwards and was mounted by Earl Henry for the E. T. O. S. collection here. The previous record (see Wilson Bulletin. 1929, vol. 41, p. 99) was a specimen picked up on July 30, 1926, near Townsend in the Great Smokies National Park, at an altitude of 3300 feet. This specimen was found by my daughter, Miss Elizabeth Ijams, who made a sketch of it and wrote down a careful description. A bird as conspicuously marked with black as is this species, can readily be identified from such data. The Sooty Tern breeds on the Florida Keys and when found north of that state is regarded as an accidental visitor.—**H. P. Ijams, Knoxville.**

CROW REDUCTION CONTEST: **The Nashville Banner** recently concluded a second contest in an effort to reduce Tennessee's Crow population. The Banner and the State Game and Fish Department are of the opinion that the supply of Bob-whites will be helped by the reduction of these now abundant birds. They are also charged with stealing hen's eggs, young chickens, small rabbits and even killing new born lambs. There are those who hold a brief for the Crow but they need not be in any way alarmed for the birds are well able to take care of themselves. Ninety seven hundred adults, young, and eggs taken in the two contests, scarcely makes a dent in the many hundreds of thousands of these birds in the State. The summer contest began on April 16th, and closed July 28th, with 7219 reported taken. Crow eggs and young from the nests counted the same as old birds. The winner was Clyde Redford of Franklin whose total was 480 and whose success was chiefly due to finding many dozens of nests. Other high marks were those of Admiral Wright of Flintville with 447, E. C. Moore of Linden with 397, and A. B. McAbee of Lincoln County with 360. The advisability of summer crow contests is very questionable for the reason that a plausible excuse to be afield with guns is afforded irresponsible parties and they are apt to shoot other birds than the Crow.

* * *

We call attention to the fact that this issue contains twenty-five articles relating to the bird-life of Tennessee. These articles, contributed by members from every section of the State and even beyond, indicate the widespread activity and interest in the Society by its members.

* * *

MEETINGS: The Nashville division of the T. O. S. will hold its meetings during the balance of the year on Oct. 1, 15, 29, Nov. 12, 26, and Dec. 10. These meetings fall on Monday nights, at 7:30 P.M., in the Social-Religious Building of Peabody College. All members are urged to attend and our program committee will make the meeting worth while. The annual Fall Field Day will be held on Sunday, Oct. 22nd, and is always an enjoyable event. The annual Christmas Census of winter birds will be held on Sunday, Dec. 23rd; last year's record of 67 species will be hard to beat. Meeting dates of the Knoxville Division of the T. O. S., together with the names of members chosen to sponsor the programs on those dates, are as follows. Oct. 3, Bird program for the general public, S. A. Ogden and Mrs. Lynn; Oct. 21, Fall Field Day at Lake Andrew Jackson, John Hay; Nov. 7, Anatomy and Classification of Birds, Prof. Ressler; Nov. 18, The Norris dam area, Stanley Clefenger; Dec. 5, President's and Curator's reports, Messrs. Bamberg and Ogden; Annual Christmas bird census, Dec. 23. On Sept. 23, a field day was held at the Island Home sanctuary, attended by 27 members and their families; 55 species of birds were listed.

Meeting dates for the Memphis Division are Oct. 7 and 21, Nov. 4 and 18, Dec. 2 and 16th. The Annual Christmas census is set for Dec. 25th. After Jan. first, all meetings will be on the first and third Mondays of each month. Miss Mary Davant of the Cossitt Library is president.

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"The simple truth about birds is interesting enough,
it is not necessary to go beyond it."

SEASONAL ACTIVITIES.

Autumn, for the student and lover of birds, is a season of keenest interest. The birds by then have donned their fresh feathers and are arrayed in soft shades and rare tints some of which wear off within a few short weeks. For example, there are buffy tinges to the underparts of the Mockingbird and Brown Trasher which are not to be seen at other seasons. The brisk cool weather, brings to our feathered friends a return of keen appetites and nature is ready with a harvest of poke berries, wild grapes, seeds and acorns. At no season of the year are birds so fat as in autumn. Now is the time to look to your feeding shelves, to add others if there is room, and water too, for birds must drink and will bathe even in cold weather. Those of our summer birds which spend the winter to the South are silently slipping away and have been gone for days before we realize it. How different from their return in Spring when they boisterously announce their arrival and are all astir to glean slim rations after winter's desolation. One sees at this season, particularly during September, conspicuous migrations of Mockingbirds, Red-headed Woodpeckers, Kingbirds, Nighthawks, and others. There are steady daylight flights of these birds southward, while others make their flight before the dawn or leisurely flit southward from tree to tree, making but a few miles of their journey during a day. The Chimney Swifts afford a nightly spectacle as they pour into favored empty chimneys by thousands to spend the night; they remain with us until about October 20, unless a premature cold snap hurries them on their way. October brings our winter birds from lands to the north of us and they seem as glad to get back to their winter homes as are our summer birds in the Spring. Learn to know the Winter birds and to study their ways at that season. There are not so many as in the Summer perhaps but they may be more easily seen and watched. One becomes accustomed to wind, cold, and mud; tramps afield in winter soon lose their inhibitions. Choose certain birds if you will and make a study of their winter habits; for instance the woodpeckers, the sparrows, the titmice, the birds of prey, etc. Observe how they get their food and of what it consists; if they are sociable; with what other species do they mingle; listen to their various calls and learn their meaning; what brings about their heavy death rate; how and where do they roost at night; these and many other items in the daily life of our birds form an absorbing study. May we also add, that when your findings have been set down on paper and published in the columns of *The Migrant*, you will be sharing with others the pleasure and interests that have been yours. If you have a friend or friends who are more or less interested in birds, why not assist them to develop this interest further. The T. O. S. desires to spread interest in birds among a greater number of people and we are therefore asking our members to secure, this Autumn, at least one new member apiece.

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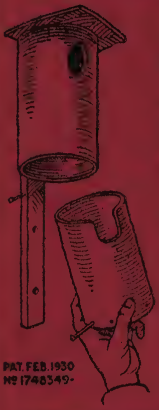

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THE NESTING BIRDS OF NORTHEASTERN TENNESSEE

By ROBERT B. LYLE and BRUCE P. TYLER

FOREWORD: Perhaps no distributional publications are of more value than annotated lists of the breeding birds of states or smaller areas when the data presented are accurate and definite.

Such lists are of value not only as faunal studies, but as helps in working out the detailed geographical distribution of our birds, about which comparatively little is generally known.

The present article on the birds of northeastern Tennessee is such a list, and should meet with a very cordial reception on the part of the students of faunal and distributional ornithology. We have altogether too few of such publications.—Harry C. Oberholser.

In the September, 1933, issue of *The Migrant* the authors of this paper presented to its readers a list of the birds of Northeastern (Upper East) Tennessee, occurring during the months of December, January and February, whether permanent residents, winter residents, visitants or accidentals. The mere fact that these birds appeared here and were recorded during those three months was sufficient authority for listing them. In this, the second paper, only those birds are listed whose nests have been found or are known to exist either by the authors, or by Messrs. Fred M. Jones, formerly of Bristol, Tennessee, or Howard Long of Kingsport, Tennessee, who have very graciously furnished missing data. This opportunity is taken to thank them for their valued assistance.

The territory covered by this paper is the same as that described in our paper on the winter birds above referred to. It embraces portions of the Upper Austral, Transition and Canadian Zones. Our observations have been made within a radius of thirty miles of Johnson City, which has an elevation of about 1,700 feet above sea level. This city lies in the valley of the Watauga River, nestling against Buffalo Mountain on the southeast, and about three hundred feet above and, say, five miles southeast of the river. It is located thirty miles south of the Virginia line. To the north and west stretches the valley, mountains rising again at Clinch Mountain to the mean elevation of 3,000 feet at a distance of approximately twenty-five miles from Johnson City as the crow flies. To the northeast lies Shady Valley, the topography of which is described in a recent paper "Summer Birds of Shady Valley," by A. F. Ganier and Bruce P. Tyler in *The Migrant*, 1934, p. 21. The principal mountains to the southeast are Holston, Iron, Roan and Big Bald. The latter two are on the Tennessee-North Carolina state line, approximately twenty miles southeast of Johnson City, and having a maximum elevation of 6,313 feet on Roan Mountain. More adjacent to Johnson City are Buffalo, Cherokee and Unaka Mountains. The valley is traversed by the Watauga and Holston Rivers, and approached on the south by the Nolichucky River. The Watauga and Holston Rivers are separated by a ridge of minor importance. In this setting the data for this paper have been secured.

In the list of nesting birds enumerated there are species either known or believed to breed in this vicinity, particularly in the higher mountains, but on which, from lack of actual observation, no nesting data can be given. Notations to that effect are made under each of these species. This abbreviated record must not be interpreted to mean that the birds are not here, for they have been recorded as present during the breeding season when every action indicated that they were nesting, but the nests could not be found. We feel that their inclusion strengthens the value of our observations. Wherever possible with each of the 105 species here listed, will be found the specific dates upon which nests have been found in this locality. In the case of the commoner species, only three or four selected records are given.

The information presented herewith is a summary of data collected over a period of many years of field work, representing hundreds of miles of rough walking, hard climbs, sore and bruised muscles, to say nothing of tattered clothing, fruitless trips or poison ivy.

EASTERN GREEN HERON. *Butorides virescens virescens.*

Fairly common on streams or ponds, where most nests are found. First nesting May 16th, five fresh eggs. Second nesting, June 4th, five fresh eggs; June 18th, five young just hatched; June 20th, five eggs incubated four days.

TURKEY VULTURE. *Cathartes aura septentrionalis.*

Fairly common. They nest as high as forty feet in tree cavities, but mostly on ground in hollow trees and old stumps, or in "pot holes" or small caves in the river bluffs. April 10th, 22nd, 27th and 29th, May 13th and 16th.

BLACK VULTURE. *Coragyps atratus atratus.*

Very abundant in a restricted area on South Fork of Holston River, but not to be found nesting elsewhere. All nests found have been in "pot holes" of the cliffs above the river. They nest about a month earlier than the Turkey Vulture. Will frequently lay a second set in about twenty-one days in same nest if first eggs are taken. March 12th, 20th and 29th, April 2nd, 7th and 15th, and May 2nd.

COOPER'S HAWK. *Accipiter cooperi.*

Fairly common. The farmers are unfriendly to them because of their liking for poultry, and have reduced their numbers. Nests found usually above forty feet, one being collected at the height of one hundred and twelve feet. April 16th, four fresh eggs; April 21, two fresh eggs (spotted); May 1st, five eggs incubated five days; May 19th, four fresh eggs; May 20th, four fresh eggs.

EASTERN RED-TAILED HAWK. *Buteo borealis borealis.*

Fairly common in the heavy timber. Nests placed at very greatest heights in largest trees. The majority lay about March 25th, but nests have been found to contain eggs until June. March 25th, two eggs incubated twenty days; May 25th, two fresh eggs; April 1st, one egg incubated twenty days; April 4th, hatching; April 1st, two fresh eggs.

BROAD-WINGED HAWK. *Buteo platypterus platypterus.*

Rather rare. April 29th, three fresh eggs; May 2nd, three eggs incubated five days; May 3rd, three eggs incubated five days; May 6th, two fresh eggs; May 9th, two eggs incubated three days; May 16th, four eggs incubated ten days.

DUCK HAWK. *Falco peregrinus anatum.*

Three pairs nesting near Johnson City—all in cliffs above rivers. May 1st, 1929, three young almost grown, in brown and white plumage; April 14th, 1933, one egg; May 13th, 1933, three eggs—second nesting. (See *The Migrant*, 1933, p. 43); March 29th, 1934, three young and two eggs.

EASTERN SPARROW HAWK. *Falco sparverius sparverius.*

Fairly common. Of late years occasional nesting sites have been chosen in suitable holes in brick buildings in the heart of business sections. Usually they nest high in holes of dead trees. April 22nd, four fresh eggs; April 24th, six eggs incubated four days; April 26th, five eggs about to hatch; April 27th, five eggs incubated ten days; May 19th, five eggs incubated four days; May 31st, three fresh eggs.

EASTERN RUFFED GROUSE. *Bonasa umbellus umbellus.*

Fairly common in the mountains. Nest in April and again if broken up. May 22nd (second nesting), four fresh eggs; May 29th, brood of ten just able to fly.

EASTERN BOB WHITE. *Colinus virginianus virginianus.*

Fairly common. Raise two broods each year. May 12th, four fresh eggs; June 7th, two nests, just beginning to lay (Shady Valley); July 5th, two fresh eggs.

KILLDEER. *Oxyechus vociferus vociferus.*

Nests found in both grassy and cultivated fields, and often at a great distance from water. Nests through April, May and June. March 21st, four newly hatched young—weather cold; April 28th; May 10th; May 24th, four eggs incubated four days; June 10th; June 18th.

AMERICAN WOODCOCK. *Philohela minor.*

Regular summer resident in suitable locations, but very scarce. June 2nd, young large enough to fly; June 4th, two young three-fourths grown.

SPOTTED SANDPIPER. *Actitis macularia.*

Common summer resident. Only nest found was in bunch of grass near mill dam, June 10th, containing four highly incubated eggs—about one hundred twenty-five feet from water.

EASTERN MOURNING DOVE. *Zenaidura macroura carolinensis.*

Apparently very much decreased from the annual slaughter, during the hunting season. The open season for shooting should be made to coincide with the quail season to avoid undue decrease. March 26th, two fresh eggs; April 9th; April 15th; April 23rd; April 29th; May 1st; May 6th and May 14th.

YELLOW-BILLED CUCKOO. *Coccyzus americanus americanus.*

Fairly common. May 24th, two fresh eggs; May 27th, two fresh eggs; May 31st, two fresh eggs; June 6th, four fresh eggs; June 15th, three eggs incubated fourteen days.

BLACK-BILLED CUCKOO. *Coccyzus erythropthalmus.*

Less common than the former. May 22nd, four eggs incubated two days; June 4th, two fresh eggs.

BARN OWL. *Tyto alba pratincola.*

Permanent resident. Rare. Only one nest found; near Blountville, April 27th, containing seven fresh eggs.

EASTERN SCREECH OWL. *Otis asio naevius.*

Fairly common. March 28th, four fresh eggs; April 18th, two young and one egg; April 25th, three pipped eggs.

GREAT-HORNED OWL. *Bubo virginianus virginianus.*

Only a very few left and these in dense remote woodland. February 10th, average nesting date. March 1st, two eggs incubated twenty-five days; March 1st, two young birds.

NORTHERN BARRED OWL. *Strix varia varia.*

Being gradually reduced in numbers, as are all hawks and owls. Rare and restricted to certain localities where not molested. March 30th, two fresh eggs; April 4th, three young.

CHUCK-WILLS-WIDOW. *Antrostomus carolinensis.*

Rare and seldom seen. Nest found June 6th, containing two pipped eggs, in woodland above river cliffs along the Watauga River near Flourville. Regular summer resident.

EASTERN WHIP-POOR-WILL. *Antrostomus vociferus vociferus.*

Common with the exception of 1933, where none were seen or heard at their old haunts and very few seen elsewhere. Abundant, as usual, in 1934. May 12th, two eggs incubated four days; May 22nd, two eggs incubated six days; May 31st, two eggs incubated two days; June 3rd, two eggs incubated ten days.

EASTERN NIGHTHAWK. *Chordeiles minor minor.*

Fairly common except in 1933, when they, too, as the above species, were very scarce—possibly on account of heavy storms. May 10th, two fresh eggs; May 23rd, two fresh eggs; May 25th, two eggs incubated thirteen days; June 11th, two fresh eggs; June 28th, two fresh eggs.

CHIMNEY SWIFT. *Chaetura pelagica.*

No large flocks seen as compared to a number of years back, but still a common bird. June 7th, nest in old chimney; June 24th, five eggs incubated eight days—this nest was in an old hollow tree.

RUBY-THROATED HUMMINGBIRD. *Archilochus colubris.*

Fairly common. Nests difficult to locate. May 23rd, two eggs incubated three days; May 25th, two fresh eggs; May 28th, two fresh eggs; May 29th, two fresh eggs; June 24th, two fresh eggs.

EASTERN BELTED KINGFISHER. *Megaceryle alcyon alcyon.*

Fairly common along our streams. Never more than one pair nesting in the same locality. Both sexes incubate. April 21st, three fresh eggs; May 10th, seven eggs incubated five days; May 19th, seven fresh eggs; June 1st, two eggs incubated fourteen days.

NORTHERN FLICKER. *Colaptes auratus luteus.*

Common. If the eggs are skillfully removed from a flicker's nest the female will continue to lay many eggs in the same nest. April 22nd, one fresh egg; April 28th, one fresh egg; May 23rd, five fresh eggs.

SOUTHERN PILEATED WOODPECKER. *Ceophloeus pileatus pileatus.*

Fairly common. April 14th, three fresh eggs; April 22nd, three eggs incubated five days; May 2nd, four eggs incubated ten days; May 4th, four eggs incubated three days; May 4th, four eggs incubated ten days; May 13th, three eggs incubated three days.

RED-BELLIED WOODPECKER. *Centurus carolinus.*

Rare in this area. Only one nest found, April 24th—fresh eggs.

RED-HEADED WOODPECKER. *Melanerpes erythrocephalus.*

Rare near Johnson City, but fairly common to the south in the Austral Zone. May 19th, six fresh eggs; May 28th, five fresh eggs; May 30th, five eggs incubated ten days; June 2nd, five fresh eggs.

NORTHERN DOWNY WOODPECKER. *Dryobates pubescens medianus.*

Fairly common. May 7th, five eggs incubated two days; May 8th, three eggs incubated two days; May 14th, five eggs incubated ten days; May 24th, four eggs incubated four days; July 5th, three young.

EASTERN HAIRY WOODPECKER. *Dryobates villosus villosus.*

Fairly common. chiefly at high altitudes. April 27th, three eggs incubated five days; May 17th, two eggs incubated three days.

EASTERN KINGBIRD. *Tyrannus tyrannus.*

Fairly common to rare. May 14th, two fresh eggs; May 20th, four eggs incubated four days; May 22nd, four fresh eggs; June 5th, four eggs incubated five days; June 17th, three eggs incubated two days.

NORTHERN CRESTED FLYCATCHER. *Myiarchus crinitus boreus.*

Fairly common. May 30th, five eggs incubated three days; June 5th, four eggs incubated five days; June 13th, three eggs incubated twelve days; June 20th, young birds.

EASTERN PHOEBE. *Sayornis phoebe.*

Common resident. April 30th, five fresh eggs and two Cowbird eggs. This nest was abandoned. April 15th, five fresh eggs; May 10th, five fresh eggs; May 13th, four fresh eggs; May 20th, five fresh eggs.

ACADIAN FLYCATCHER. *Empidonax virescens.*

Common. May 20th, two eggs incubated three days; July 1st, three eggs incubated five days.

LEAST FLYCATCHER. *Empidonax minimus.*

Breeds in upper reaches of the Transition Zone.

EASTERN WOOD PEWEE. *Myiochanes virens.*

Fairly common. May 26th, three fresh eggs; May 29th, three fresh eggs; June 5th, three eggs incubated four days; June 8th, three fresh eggs; June 18th, two eggs incubated two days; June 20th, three fresh eggs.

PRAIRIE HORNED LARK. *Otocoris alpestris praticola.*

Rare in summer. Only one breeding record, on May 10th, saw female feeding young.

ROUGH-WINGED SWALLOW. *Stelgidopteryx ruficollis serripennis.*

Fairly common. May 18th, seven fresh eggs; May 18th, three fresh eggs; May 24th, seven fresh eggs; June 19th, five eggs incubated five days.

BARN SWALLOW. *Hirundo erythrogaster.*

Fairly common to rare. A colony of six pairs found in Shady Valley, where on June 9th nests with full clutches of five eggs and young birds were found (see *The Migrant*, June, 1934, p. 21); nesting data elsewhere is May 4th, five fresh eggs; May 17th, two nests each containing three fresh eggs; July 6th, five fresh eggs; May 26th, five fresh eggs.

NORTHERN CLIFF SWALLOW. *Petrochelidon albifrons albifrons.*

Observed only on Roan Mountain. July 7th, 1934, which date would indicate that it may nest in that vicinity.

PURPLE MARTIN. *Progne subis subis.*

Disappeared from this neighborhood for a number of years, but 1933 brought great numbers of them. June 5th, four fresh eggs.

NORTHERN BLUE JAY. *Cyanocitta cristata cristata.*

Very common. A menace to other birds on account of its habit of eating their eggs or very small nestlings. May 15th, five fresh eggs; May 1st, five eggs incubated ten days; May 5th, five fresh eggs.

NORTHERN RAVEN *Corvus corax principalis.*

Very rare. Found in the roughest parts of the higher mountains.

SOUTHERN CROW. *Corvus brachyrhynchos paulus.*

Common, but decreased during the last ten years. April 2nd, three fresh eggs; April 8th, five eggs incubated three days; April 16th, four fresh eggs; April 18th, five eggs incubated fifteen days; April 23rd, five eggs incubated fifteen days.

BLACK-CAPPED CHICKADEE. *Penthestes atricapillus atricapillus.*

Less common than the following species. Doubtless it breeds here at high altitudes, but its nest has not been found.

CAROLINA CHICKADEE. *Penthestes carolinensis carolinensis.*

Common. May 20th, five fresh eggs May 4th, six fresh eggs; June 3rd, six eggs incubated three days.

TUFTED TITMOUSE. *Baeolophus bicolor.*

Common. Nests not easily found. May 13th, seven fresh eggs; May 19th, six fresh eggs.

WHITE-BREASTED NUTHATCH. *Sitta carolinensis carolinensis.*

Fairly common to rare. April 11th. seven fresh eggs; April 27th, seven fresh eggs; May 25th, young birds.

RED-BREASTED NUTHATCH. *Sitta canadensis.*

Abundant during breeding season on top of Roan Mountain, where it certainly breeds, but no nests have been found.

HOUSE WREN. *Troglodytes aedon aedon.*

Breeds very sparingly in the Transition Zone; more common in the Canadian Zone, on top of Roan Mountain, where on July 7th the birds were observed in full song, but no nests were found. The following record of many years ago is from the vicinity of Johnson City: May 29th, two fresh eggs—is regarded as very unusual.

EASTERN WINTER WREN. *Nannus hiemalis hiemalis.*

These birds occur in considerable numbers in the breeding season in full song in the Canadian Zone, on all high mountains in this vicinity. They were so observed on Roan Mountain June 23rd and July 7th, but no nests were found.

BEWICK'S WREN. *Thryomanes bewicki bewicki.*

Fairly common. April 13th, five fresh eggs; May 1st, five fresh eggs; May 25th, five fresh eggs.

CAROLINA WREN. *Thryothorus ludovicianus ludovicianus.*

Common. June 17th, five fresh eggs; May 15th, five eggs incubated three days; May 10th, four fresh eggs; May 9th, four fresh eggs.

EASTERN MOCKINGBIRD. *Mimus polyglottos polyglottos.*

Common. May 15th, four eggs incubated three days; May 29th, five fresh eggs; June 18th, four eggs incubated ten days. Second nesting July 2nd, four fresh eggs.

CATBIRD. *Dumetella carolinensis.*

Fairly common. April 29th, four fresh eggs; May 15th, four fresh eggs; June 3rd, four fresh eggs.

BROWN THRASHER. *Toxostoma rufum.*

Abundant. April 28th, five eggs pipped; May 6th, four eggs incubated five days; April 29th, four eggs incubated ten days.

SOUTHERN ROBIN. *Turdus migratorius achrusterus.*

Very common. April 10th, four fresh eggs; May 1st, four fresh eggs; May 3rd, four fresh eggs; May 17th, three fresh eggs; June 10th, three eggs incubated five days.

WOOD THRUSH. *Hylocichla mustelina.*

Fairly common. May 17th, four eggs incubated ten days May 21st, four eggs incubated eight days; May 16th, three pipped eggs; May 29th, four fresh eggs; June 17th, three fresh eggs.

VEERY. *Hylocichla fuscescens fuscescens.*

Fairly common in mountains at high elevations, say 4,000 feet and higher. altitudes, but its nest has not been found.

EASTERN BLUEBIRD. *Sialia sialis sialis.*

Fairly common. Now increasing after being scarce for a number of years. Breed through July. Raise two broods regularly—occasionally four broods. April 10th, five fresh eggs; April 15th, five fresh eggs; April 28th, five fresh eggs; July 9th, five fresh eggs—second nesting.

BLUE-GRAY GNATCATCHER. *Polioptila caerulea caerulea.*

Very few found each season. April 30th, four fresh eggs; May 11th, five eggs incubated three days; June 18th, three fresh eggs; June 26th, four fresh eggs.

CEDAR WAXWING. *Bombycilla cedrorum.*

Fairly common resident. Summer resident in Canadian and upper part of Transition Zones. Nest in colonies on top of high mountains in Canadian Zone. June 6th, four fresh eggs; June 7th, four fresh eggs; June 28th, four fresh eggs; June 28th, five eggs incubated five days. Female feeding young September 10th, 1933.

STARLING. *Sturnus vulgaris vulgaris.*

Increasing rapidly and to an alarming extent. Flocks seen—1933—probably 50,000. Several broods. In 1934 the great flocks are missing.

WHITE-EYED VIREO. *Vireo griseus griseus.*

Common. May 11th, one fresh egg; May 23rd, four fresh eggs; May 27th, four eggs incubated five days; May 30th, two fresh eggs; June 3rd, one fresh egg.

YELLOW-THROATED VIREO. *Vireo flavifrons.*

Rare. June 2nd, young birds July 24th, three fresh eggs.

MOUNTAIN VIREO. *Vireo solitarius alticola.*

Found at high altitudes. May 19th, four fresh eggs; May 20th, three fresh eggs.

RED-EYED VIREO. *Vireo olivaceus.*

A common bird in woodlands. May 27th, three fresh eggs; June 3rd, three fresh eggs; June 4th, three fresh eggs; June 13th, four eggs incubated six days; June 27th, three fresh eggs.

BLACK-AND-WHITE WARBLER. *Mniotilta varia.*

Common summer resident. May 2nd, two young birds and two stale eggs; May 16th, three young and one egg; June 11th, four fresh eggs—second nesting.

PROTHONOTARY WARBLER. *Prothonotaria citrea.*

The only nest observed was on Holston River April 30th. Nest under construction in dead willow snag about six feet high and leaning over water.

SOUTHERN PARULA WARBLER. *Compsothlypis americana americana.*

Fairly common. Perhaps our bird here is the Northern subspecies *c. a. pusilla.* June 1st, four fresh eggs; June 26th, three fresh eggs; June 27th, three fresh eggs. Raises two broods.

EASTERN YELLOW WARBLER. *Dendroica aestiva aestiva.*

Fairly common. May 16th, four fresh eggs; May 16th, two fresh eggs; May 18th, one fresh egg; May 20th, four eggs incubated four days.

CAIRN'S WARBLER. *Dendroica caerulescens cairnsi*

Fairly common to rare in higher mountains in Canadian one. June 28th, young birds; June 20th, four eggs incubated four days; July 1st, three young.

BLACK-THROATED GREEN WARBLER. *Dendroica virens virens.*

Regular summer resident in upper part of Transition Zone and Canadian Zone. Surely breeds here, but no nests have been found.

YELLOW-THROATED WARBLER. *Dendroica dominica dominica.*

Summer resident, but local in distribution. Rare. May 18th, four fresh eggs. Breeds up to about 3,000 feet elevation.

CHESTNUT-SIDED WARBLER. *Dendroica pensylvanica.*

Breeds in upper reaches of the Transition Zone. June 28th, three fresh eggs; June 18th, three fresh eggs.

OVEN-BIRD. *Seiurus aurocapillus.*

Common. May 17th, three fresh eggs and two cow-bird eggs; May 28th, five pipped eggs; June 21st, four eggs incubated ten days.

LOUISIANA WATER-THRUSH. *Seiurus motacilla.*

Fairly common. April 23rd, one fresh egg; April 30th, five fresh eggs; May 27th, two young birds and three eggs; May 13th, three young birds; two eggs and one cow-bird egg.

KENTUCKY WARBLER. *Oporornis formosus.*

Common. May 20th, four fresh eggs; May 24th, two sterile eggs.

MARYLAND YELLOW-THROAT. *Geothylpis trichas trichas.*

Fairly common. May 22nd, four fresh eggs and one cow-bird egg; May 24th, four eggs incubated three days; May 26th, five fresh eggs.

YELLOW-BREASTED CHAT. *Icteria virens virens.*

Common. May 24th, four fresh eggs; June 1st, five fresh eggs; June 15th, three pipped eggs.

HOODED WARBLER. *Wilsonia citrina.*

Fairly common in mountain forests. June 14th, two eggs incubated nine days; June 10th, four fresh eggs; June 19th, young birds.

AMERICAN REDSTART. *Setophaga ruticilla.*

Fairly common. May 12th, two fresh eggs; May 16th, three fresh eggs; June 5th, three eggs incubated seven days; June 14th, three eggs incubated eight days.

ENGLISH SPARROW. *Passer domesticus domesticus.*

Common, but not as abundant as a few years ago. Has learned to eat cabbage worms, and is becoming more insectivorous, due to shortage in the supply of its usual diet. February 15th, June 23rd and doubtless later. Generally lays five eggs.

EASTERN MEADOWLARK. *Sturnella magna magna.*

Common. April 23rd, five eggs incubated seven days; May 24th, five fresh eggs; July 28th, four fresh eggs.

EASTERN RED-WING. *Agelaius phoeniceus phoeniceus.*

Fairly common. Nests in rushes in marshy land or in trees as far up as twenty-five feet. Raises two broods. First nesting May 12th, four fresh eggs; May 19th, four fresh eggs; May 26th, three eggs incubated three days; May 27th, three eggs incubated two days. Second nesting June 1st, four eggs incubated two days; June 10th, four fresh eggs; June 10th, four eggs incubated seven days.

ORCHARD ORIOLE. *Icterus spurius.*

Fairly common. During the spring of 1933 noted several young males in their immature plumage. May 23rd, three fresh eggs; May 24th, one fresh egg; May 25th, four eggs incubated two days; May 29th, five fresh eggs.

BALTIMORE ORIOLE. *Icterus galbula.*

Rare. May 20th, five fresh eggs; June 5th, five fresh eggs.

PURPLE GRACKLE. *Quiscalus quiscula quiscula.*

Common. Breeds preferably in colonies in groups of cedar trees about twenty feet above the ground. Raise only one brood unless the first eggs laid are lost. April 29th, four eggs incubated seven days; May 1st, five eggs incubated four days; May 29th, five fresh eggs.

EASTERN COWBIRD. *Molothrus ater ater.*

Fairly common. Their eggs have only been found in this neighborhood during the past three years. One egg each in Phoebe and Maryland Yellow-Throat nests. In another Phoebe nest, in addition to five Phoebe eggs, two eggs were found, causing the Phoebe to leave the nest. Cowbird eggs were also found in two Cardinal nests.

SCARLET TANAGER. *Piranga erythromelas.*

Fairly common in woodland of Transition and Canadian Zones. May 20th, four eggs incubated two days; May 26th, three fresh eggs at altitude of 5,000 feet; May 24th, three young birds.

SUMMER TANAGER. *Piranga rubra rubra.*

Fairly common. May 24th, four fresh eggs; May 26th, two nests each, containing four fresh eggs.

EASTERN CARDINAL. *Richmondena cardinalis cardinalis.*

Common. April 17th, three fresh eggs and two cowbird eggs; April 29th, three fresh eggs; May 4th, four young and one cowbird egg; May 25th, four fresh eggs; May 13th, four fresh eggs; June 2nd, four fresh eggs.

ROSE-BREASTED GROSBEAK. *Hedymeles ludovicianus.*

Breed in the Canadian Zone at about 5,000 feet elevation. Frequently heard in full song, but no nests have been found. June 10th, observed pair carrying material for nest building.

INDIGO BUNTING. *Passerina cyanea.*

Fairly common. May 28th, two fresh eggs; May 31st, four fresh eggs; June 1st, four fresh eggs; June 5th, three eggs incubated three days; July 18th, three fresh eggs.

EASTERN GOLDFINCH. *Spinus tristis tristis.*

Common. July 14th, one fresh egg; July 24th, six fresh eggs; July 27th, three eggs incubated six days; August 3rd, five fresh eggs; August 7th, five fresh eggs; August 16th, four fresh eggs; August 27th, female noted feeding young.

RED-EYED TOWHEE. *Pipilo erythropthalmus erythropthalmus.*

Common. May 20th, four fresh eggs; June 1st, four fresh eggs; June 5th, three eggs incubated ten days; June 10th, three pipped eggs.

EASTERN GRASSHOPPER SPARROW. *Ammodramus savannarum australis.*

Common. June 3rd, five young birds; June 5th, five eggs incubated seven days; June 13th, five fresh eggs; July 14th, five fresh eggs.

EASTERN VESPER SPARROW. *Pooecetes candacuta nelsoni.*

Fairly common. May 25th, three fresh eggs; June 24th, four young birds; May 19th, two fresh eggs; June 7th, two pairs feeding young in Shady Valley.

BACHMAN SPARROW. *Aimophila aestivalis bachmani.*

A number were found during 1911-12-13 breeding in a restricted area. No nests observed since that time until 1934. May 11th, four fresh eggs; May 18th, five eggs incubated three days.

CAROLINA JUNCO. *Junco hyemalis carolinensis.*

Common in extreme upper part of Transition Zone and the Canadian Zone. May 24th, four fresh eggs; June 16th, three fresh eggs; June 24th, three eggs incubated five days; July 9th, three pipped eggs.

EASTERN CHIPPING SPARROW. *Spizella passerina passerina.*

Common. Believed to raise three broods yearly, nesting throughout July. May 20th, three fresh eggs; May 23rd, four fresh eggs; June 5th, 4 fresh eggs.

EASTERN FIELD SPARROW. *Spizella pusilla pusilla.*

Common. Believed to raise three broods yearly. May 20th, three eggs incubated seven days; May 21st, four eggs incubated eight days; May 25th, four fresh eggs; August 6th, three fresh eggs.

EASTERN SONG SPARROW. *Melospiza melodia melodia.*

Common. May 22nd, four eggs incubated three days; May 22nd, four eggs incubated nine days; June 3rd, four fresh eggs.

JOHNSON CITY, TENN., December, 1934.

WOODCOCK NOTES AND SUNDRY OTHERS

By DAN R. GRAY.

The flatwoods country or "Barrens" around Summertown, partly in Lawrence and part in Lewis County, is well adapted to the needs of the Woodcock. There are a number of low flat areas in which shallow water may be found most of the year, and these swampy areas coupled with the fact that the country is only very thinly inhabited, have made it possible for these birds to survive. I formerly spent most of my Sundays in this area, with a pack of beagle hounds, and flushed the Woodcock there quite frequently. They were seen at all times during the year except in very cold winter weather. It was very usual during warm spells in February to see and hear the mating play and song of these semi-nocturnal birds, and I remember on one occasion hearing four males in one night. While they usually engage in this "play" only at dusk, they will keep it up quite late on a moonlight night. I once heard the performance on the 31st of December, in 1923 or 1924. We had had a warm spell prior to that time, but it turned very cold immediately afterwards.

Woodcocks lay their eggs very early, nesting on the ground among the leaves and being close sitters their nests are rarely found. I found two nests, in different years, near Gum Springs, in Lawrence County, about two miles south of Rockdale, and have seen young birds on a number of occasions in "The Barrens." The two nests mentioned were on dry banks, one at the foot of a black-jack oak and the other in a small thicket. There were four eggs in each and these were left undisturbed. I rarely visit the above country now, but I feel sure they are still there; there were certainly lots of them as late as 1930, and probably a good percentage were summer residents.

Near my present location, Mt. Pleasant, there is not much country suitable for them, and I do not see them often. In late October, 1934, I flushed one on a hillside about 200 yards from a small stream. A number of years ago, a Woodcock was shot on February 28 and on dressing it she was found to contain well-developed eggs. At that time (1911) the hunting season ran on until April 15, and there was no Weeks-McLean bird law.

In the March, 1932, *Migrant*, I mentioned that Upland Plover were usually seen here every spring. During the spring of 1934, I saw none, but heard one at dusk, pasing over. There were two, however, on my farm in early September. My son and I saw them while dove shooting, but they flushed at some distance and were not to be seen on subsequent days.

Duck shooting on Arrow Lake, near here, up to November 15, netted me 4 Lesser Scaup, 2 Ring-necks, a Redhead, and a Shoveller, while I bagged two Mallards on Bigby Creek. On the "phosphate ponds" on December 13, there were 14 Lesser Scaups, 5 Mallards, 2 Ring-necks, 2 Shovellers, a Redhead, and a female Goldeneye, which I bagged. Pied-billed Grebes are often seen, and I have also seen the Horned Grebe. Large numbers of Redwings roosted in the rushes growing in the ponds, until late fall.

A pair of Pileated Woodpeckers live in the vicinity of my home and frequently visit the large trees in the front yard. A large magnolia stands close to the house and they have been visiting this regularly, no doubt to get the bright red seeds which are found on the seed pods. While they are in the tree the seeds shower down on the ground. Mr. Ganier writes me that he was told by Mr. L. R. Campbell, who lives on the Murfreesboro Road near Nashville, that Pileated Woodpeckers had visited his magnolia trees every fall to get these seed.

Mt. Pleasant, Tenn., December, 1934.

WAYSIDE NOTES FROM WEST TENNESSEE

By BEN B COFFEY.

On July 14, 1934, the writer visited Reelfoot Lake for a few hours, in company with Mr. and Mrs. Elmer Johnson and Miss Arlene Johnson of Chicago; then drove on to Fulton, Ky., where we parted. As the day waned I "hitch-hiked" back to Union City, Tenn., where I spent the night. I stopped at the Obion river early the next morning, walked through parts of Dyersburg in the afternoon, and was off and on the road several times before leaving Ripley that night on a bus for Memphis. One of my chief objectives was to ascertain if possible how close the Towhees (Red-eyed) approach Memphis in the summer, as I have been unable to find Towhees of any race there between approximately May 10th and early October. On the evening of the 14th, from the Kentucky state line southward a few miles, I heard nine Towhees singing. Also of special interest was the faint, twittering, swift-like song of an old friend which I finally managed to locate and identify as a Grasshopper Sparrow. It escaped my first search and several insect songs about made me think memory had played me false. Two other likely fields harbored two more individuals. This species has been found only as an uncommon transient at Memphis, but was an old friend of summer days near Nashville. Another species which is apparently absent from Memphis but common at Hardy, Ark., and Nashville, is the Yellow Warbler. I had a good look at one, earlier in the day, just south of Union City. The other birds listed on this trip were the same as those to be found about Memphis. Union City itself offered few birds that evening outside of the ever-present English sparrow; several Robins and Chimney Swifts were seen and small flocks of blackbirds, chiefly Bronzed Grackles, seemed undecided in which direction to fly to roost.

The next morning I stopped at the Obion River bridge, just south of Obion, and spent two and a half hours in the bottoms. A Phoebe announced itself, seeming out of place in these alluvial bottoms, and shortly afterwards a Woodcock took off just in front of me as I slipped along the muddy river edge. Two Acadian Flycatchers, a Sycamore Warbler, a Parula Warbler, three Prothonotaries, Red-eyed and White-eyed Vireos were noted. Most of these were around a very small "horseshoe" lake in the bottoms, and as I manoeuvered for a closer look at five Wood Ducks among the button bushes at one end, a Great Blue Heron alighted in a tall cypress nearby. Five immature Little Blue Herons flew over to make the scene true to type. One of the finds of the day was made along the Illinois Central railroad, just south of the Obion River. A Painted Bunting is always a thrill, and this beauty, 95 miles north northeast of Memphis, was doubly so. Several Indigo Buntings were about, including immature birds, but after careful watching I did not discern any female or immature Painted Buntings. The song of this bird closely resembled the song of the Indigo Bunting and was distinctly different from the song common to our Memphis birds which I readily identify at a distance.

Leaving the wooded bottoms I walked the highway south, hearing many Field Sparrows and some Dickcissels in the open fields. Purple Martins circled over the town of Trimble and south of there I saw a female Redstart drop down for a drink. I did not get a chance to visit any hilly country in further search of Towhees until I reached Dyersburg. But no Towhees were recorded for the day, neither at Obion, Trimble, Dyersburg or other points south to Ripley. Beautiful wooded spots inside the city limits of Dyersburg invited Robins and Wood Thrushes, and two Warbling Vireos were present among some old shade trees in a yard. At

Ripley, a small flock of Chimney Swifts were already using the High School chimney as a roosting place.

Judging from appearances, especially on the 14th south and east of Reelfoot Lake, the most common bird in the northwestern corner of Tennessee during the summer is the Indigo Bunting. It is abundant everywhere except at the Lake itself Only one Prothonotary Warbler was heard or seen—that was at the Spillway. At Samburg the absence of the large "Purple Martin palace" was quickly noted, but the cheerful notes of the Martins still lent color to this noted fishing village. Their numbers seemed smaller than the year before. The "giant of martin houses" was, I learned, destroyed by fire along with a store. At Walnut Log we ventured out on the lake and were rewarded with glimpses of a few Florida Gallinules, Pied-billed Grebes, Coots, Least Terns, two or three Black Terns, about 15 Double-crested Cormorants, an equal number of Egrets, and a wounded Lesser Scaup Duck. Red-wings and the usual arboreal species completed the picture, while a lone Wood Ibis flew by. As we turned back, I recognized at a distance one of the Bald Eagles which frequent the Lake.

September 2, 1934.—An unfounded report of thousands of White Pelicans at Reelfoot Lake sent us there this rainy Sunday. I found driving my own car better that hitch-hiking, as attempted on the return trip in July, and had with me Mrs. Coffey, Miss Alice Smith, Eagle Scouts Fred Carney and Franklin McCamey of our Memphis Chapter. Flooded fields along the South Fork, Forked Deer River, invited a stop. Nearly everything else at this end of the state was dry all summer and fall, unfortunately for many water-birds, but a log jam, I understand, had backed up the river waters at this point. Several Egrets and Little Blue Herons were seen in the trees at the far side, while eight of the rarely-seen Short-billed Marsh Wrens were flushed and stalked among the long grass. Later, along the highway (U. S. 51), as we drove, we noted various flocks of swallows, among which we identified 2 Bank, 7 Barn, 200 Tree, and 125 Rough-winged Swallows. Turning west at Troy we drove to Samburg and back along the Lake to the Spillway and Edgewater Beach, or "The Washout." Intervals between drizzles were spent in viewing about 300 American Egrets, mostly bunched near the State's Lodge, and some 120 Little Blue Herons, concentrated near Samburg. Five of the latter were in adult plumage, the remainder immature. A Least Bittern and three Double-crested Cormorants were seen from the dock at Samburg, while the complete list for the Lake included 18 Ward's (Great Blue) Herons The return trip was uneventful, but for a stop in Ripley, where we watched about 300 Swifts pour down a tall masonry chimney.

MEMPHIS, TENN.

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BIRD BANDING BREVITIES.—NO. 3

By MRS. F. C. LASKEY.

Since the September report, 354 birds have been banded and, excepting 28 individuals, all were of the family *Fringillidae*. Included were Juncos, Cardinals, Towhees, and several species of sparrows. The latest **Chipping Sparrow** record this season was November 2. The day previous, a banded transient of this species returned, entrapping itself with an English Sparrow with disastrous results. Although it was in the trap only a short time, the English Sparrow pecked its head so persistently that it killed the smaller bird. At banding stations it is found necessary to destroy all English Sparrows. Autumn data on **Lincoln's Sparrow** in this area is meager, therefore the banding of one on October 29 is noteworthy. **Swamp Spar-**

rows have been relatively numerous at Blossomdell recently, 8 having been banded since November 9th, which is only one less than the previous total since operations began in 1931. **Song and White-throated Sparrows** have also increased in numbers over previous years. White-throats particularly had been scarce for no apparent reason. No returns of this species has been recorded in fall, but the records of early 1934 show 4 White-throats returning between January 29 and February 2. **White-crowned Sparrows** are abundant as usual at the station and 8 have returned to date this fall. One of these is now a "return," which means it is spending the fourth season at the station. It is also interesting to note that all of these returning White-crowns, excepting one, were banded as young birds in immature plumage. Records of the past three autumn and winter seasons show a marked predominance of immatures. In the first period (October, 1932, through January, 1933), the ratio banded was 27 immature to 6 adults; in the corresponding period last year, it was 36 to 6; and in 1934 from October to December 14, it is 37 to 4. One White-crowned Sparrow banded as an immature November 6, 1933, wintered at the station, repeating 75 times to May 6, 1934. It returned October 29th and is again repeating frequently. **Mockingbird** life history studies by means of both colored and numbered bands are proving very fascinating. Again this winter there are four residents at Blossomdell, but two of them are new arrivals this fall. However "B" and his mate of the past two summers remain, each occupying individual territories as they did last winter. Although the grounds about the house are divided into approximately the same territories as last year, the death of "Y" occasioned a shifting and not one of the four territories has the same occupant as last year. It would have been impossible to know this except for the identifying colored bands.

MEMPHIS AREA: Two interesting reports have come from enthusiastic banders in the Memphis area. Mr. Charles McPherson, Jr., says: "Having started banding only last February, I received the thrills of even a veteran bird bander when several of "my Sparrows" returned to our home grounds at Germantown, 20 miles east of Memphis. A small flock of White-crowned Sparrows has wintered here for several years. The first return, the only **Gambel's Sparrow** recorded in this area and banded February 12, was trapped November 10, repeating 4 times since. A partial albino **Song Sparrow**, also banded February 12, was first seen this fall on November 10, and is still present." He reports 7 White-crowned Sparrow returns from late November to mid-December of birds banded the previous season from February 24 to March 10, 1934.

Mr. Ben B. Coffey, Jr., reports his **Chimney Swifts** banding operations in the business section of Memphis on October 10, 12, 13 and 20, at three locations within a quarter of a mile of each other, resulting in the banding of about 1,000 birds. He secured four foreign recoveries, two returns of birds banded by him in 1932 and two repeats; the most interesting recovery was C-59861, banded at Chattanooga, September 24, 1930, by Prof. Green. Formerly when the Masonic Temple chimney was used by the swifts, he trapped over 1,000 birds at a time. He was assisted by Mrs. Coffey, Mrs. Barefield, Miss Alice Smith, Eric Henrich, Wendell Whittemore, Bert Powell, Fred Carney and Franklin McCamey.

NASHVILLE, TENN., December, 1934.

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With this issue we conclude our fifth volume. May it mark only an early milestone on a long journey.

THE ROUND TABLE

THE SEASON AT MEMPHIS: Late Summer and Fall trips have been generally uneventful and infrequent, due to the drying up of Mud Lake, our favorite "hunting grounds," and other bodies of water, and to lack of time, which also prevented our notes from reaching the September *Migrant.* Supplementing the Mud Lake list of July 8, included in the account of the Hudsonian Curlew at Memphis of the September issue, we will include summer notes at this time. Immediately following our red-letter "Curlew" day, visitors from Chicago arrived on July 11, and I rushed them down to show them the great assemblage of birds seen three days before. About 150 Little Blue Herons and a few Egrets were on hand, and later an Anhinga was also seen, as well as shorebirds. As we were leaving, bemoaning the absence of any Wood Ibis, fourteen large black wing-tipped birds appeared overhead. Instead of Wood Ibis, however, they were seen to be White Pelicans, a species usually recorded here not sooner than late August or September. Mud Lake's usual waterbird contingent promised to become even more alluring than in previous seasons, but unfortunately the following week found this shallow lake dry and even the waders gone. Enthusiastic invitations to "come and see our pelicans, etc.," were hurriedly amended and we sorrowfully watched the drouth continue to play havoc with our few small ponds remaining. . . . On September 23, we visited Horseshoe Lake, Ark., a large body of water 30 miles southwest of Memphis. Just after crossing the Mississippi we saw 3 White Pelicans, and nearby, while tramping the receding shores of Mound City Chute, 26 others passed over. In the evening we saw 130 of these Pelicans on a sand-bar in the Mississippi just southeast of Horseshoe. At Mound City Chute we also found 8 Short-billed Marsh Wrens, 9 immature Little Blue Herons, 2 Blue-wing Teal, and 1 or 2 Red-shouldered Hawks. Long Lake was almost dried up, and we braved the stench of decaying fish to count about 22 Egrets there and 9 Pectoral Sandpipers. At Horseshoe Lake an adult Bald Eagle soared over us at one time and later at Porter Lake, one of this "Five Lakes" group, and just south of Horseshoe, we saw an Osprey and a Wood Ibis Totals for the trip included 55 Egrets, 90 Little Blue Herons, 9 Great Blue Herons 110 Double-crested Cormorants, 60 Black Vultures, 15 Turkey Vultures, 10 Sparrow Hawks, and the usual list of common small birds In the late evening as we drove along the river levee below the lakes, the swallows seemed to fill the air in certain places. We distinguished about 150 Bank, 50 Barn, 30 Cliff, 400 Tree, and 2,000 Rough-winged Swallows; the total of all swallows was about 5,000. . . . An immature Yellow-crowned Night Heron was seen on Lake Cormorant, Miss., on September 9th, and an adult was seen at Lakeview on October 28th. . . . . At Camp Currier, Miss., 25 miles south of town, on October 7th, a House Wren played hide and seek with us; a rare visitor which took a liking to the cabin and environs. Many winter residents were seen for the first time that day, including both kinglets. On October 2, we say an Osprey at the camp lake and a lone Cormorant came there often. In company with many migrating warblers, a Philadelphia Vireo was seen. . . . .On October 28, a fall field day was held at Raleigh, about 28 bird students attending; 64 species were listed for the day, including several winter sparrows for the first time this season. . . . Our first Memphis record of the Wilson's Warbler was made when Franklin McCamey trapped an adult male over a bird bath on September 16. It was duly banded. McCamey found the Canada Warbler common this fall. Redstarts and Black-throated Green Warblers were very common as usual. . . . At Lakeview, on November 4, four Bald Eagles were seen over the lake, three of them being in adult plumage. —BEN B. COFFEY, JR., Memphis.

AN UNUSUAL FEEDING HABIT OF THE AMERICAN EGRET: At the south end of Reelfoot Lake, Tenn., on the afternoon of August 20, 1934, the writer watched for half an hour a feeding activity of the American Egret (*Casmerodius albus egretta*) that was new to him, although this particular flock of birds had been under observation almost daily for three weeks. The steady blowing of a wind sufficiently hard to whip up two-foot waves on the water was apparently responsible for the departure from the usual manner of feeding. The following is a direct quotation from notes taken at the time:

"The flight was seen to be egrets hovering, a feat I do not believe they could continue for long with less than a hard headwind under them. Each bird "stood still" on beating wings, just high enough above the waves so its dangling feet did not dip. The head and neck were held horizontal. Occasionally a bird keeled up on its breast, its legs flipped back almost in flying position, and its head stabbed into a wave for a fish, which it usually got. However, fish must have been hard to see, for a bird frequently remained thus hovering for many minutes without making a strike. There were at least two hundred birds feeding in this manner at one time, and in fairly close formation. . . ."

"About on stumps, necks drawn in and all facing the wind, were perhaps five hundred more. None of these, however, was observed to feed from its stump. Occasionally, a bird would leave its perch, come down the wind rapidly to where the feeders were hovering, turn into the wind with a steep bank, pinions wide-spread, and begin its own search for fish in the wavetops."—COMPTON CROOK, Boone, N. C.

A SNAKE ROUTED BY BIRDS: On May 3rd, I witnessed an interesting episode of wild life at Waukomis. A Screech Owl had drawn in attack upon him apparently all the birds in the woods. The little fellow was perched high on a limb of an oak, and jays, woodpeckers and titmice were after him, red hot. He seemed unable to defend himself at all. The other birds were only flying at him, however, without striking. Suddenly the birds discovered a snake, more than five feet in length, and evidently of the common "chicken" variety, on the trunk of the tree, some forty feet from the ground. All of them turned from the owl to their new enemy. The jays particularly were determined to rout the snake. One of them struck him and dislodged him, but he caught himself on a small limb and crawled back to the trunk. Then a jay struck him another vicious blow and sent him to the ground with a thud. The snake was stunned only for a second, after which he skimmed over the leaves for cover under a log. Meanwhile, the owl took advantage of the greater attraction and departed the scene—BENJ. R. WARRINER, Corinth, Miss.

A TRIP TO LADIES BLUFF: Perhaps the highest and most beautiful cliffs on the Tennessee River, in West Tennessee, are located in Perry County, three miles down-stream from the highway No. 100 bridge. It is called Ladies Bluff, it is said, because steamboat captains called their lady passengers on deck to admire these cliffs, which rise 200 feet above the water, and extend for a quarter of a mile. On November 25, Mr. Ganier and I went there to investigate the possibility of its being a nesting site of Cliff Swallows or Duck Hawks. However, no signs of the nests of either were seen, though the cliffs and the wild country about would seem well adapted to the latter. A number of Turkey Vultures were making headquarters on the ledges and Cedar Waxwings were continually circling around the top of the bluff. The landing keeper at Mousetail Landing nearby, told us that in winter and early Spring, large numbers of gulls could be seen flying upstream each time the river brought down a flood. In the valley south of the bluff was a large flock of small birds, the majority of which were Fox Sparrows. On the way from Nashville, about five miles east of the river, two immense flocks of Starlings were seen and with them were many Grackles. The flocks were estimated at 15,000 and 20,000 respectively. The Starlings performed some astonishing aerial manoeuvers as follows: The whole flock, in mass ribbon formation, would sweep upward in corkscrew fashion until more than a thousand feet above the earth, then it would drop rapidly downward nearly to the ground, only to repeat the performance before finally alighting. This flight resembled in many respects their flight above their roosts in the cedars near Murfreesboro.—Jack Calhoun, Nashville.

A LATE HUMMINGBIRD: Until this year, October 20, 1926, was my latest fall record for the Ruby-throated Hummingbird, but on November 6, 7 and 8, one in female plumage was seen and heard as she hovered over a late blooming honeysuckle vine in the garden, sometimes as early at 7 a. m. The next day or two, when she did not appear, it was decided she had finally heeded the warnings of frosty nights and observations were discontinued. However, on November 15th, when standing 10 feet from the same vine, she was again noted, alternately feeding and "squeaking," utterly oblivious of me as I "froze" on the spot. Although other honeysuckle vines bloomed in the garden, the bird always came and left by the same route to this particular vine, and was not seen near the others.—Mrs. F. C. Laskey, Nashville.

LECONTES AND LINCOLN'S SPARROW: On November 4, a Leconte's Sparrow was seen near Carthage. This bird was flushed in the weeds along a fence row bordering a meadow. It flew to a branch of a shrub about four feet from the ground. By approaching cautiously I was able to come within twelve feet of the bird, and from this distance I watched it for ten minutes, recording all markings with my field glasses as well as its short length. I then approached within eight feet of it and viewed it further. By comparing later with various color plates and specimens, I ascertained its identity.

On November 30, among a flock of Field Sparrows in a brushy field, there was a small sparrow I was unable to identify positively. It was collected and found to be a Lincoln's Sparrow. This sparrow has but rarely been recorded in the Fall about Nashhville, and the late date of this record suggests the possibility of its being a winter resident here.—Jack Calhoun, Nashville.

FALL NOTES, 1934: On October 9, a Bald Eagle was wounded with a small rifle by a party near Radnor Lake. Realizing that its taking was illegal, the party turned it over to the State Game Warden for shipment to the Smoky Mountains National Park. . . . Oct. 13 and 14 was spent at Reelfoot Lake, where the Kentucky Ornithological Society had elected to have their fall meeting. The most impressive sight seen was the gathering at sundown of immense numbers of blackbirds to their roost in the sawgrass near Walnut Log. This grass grows in water from two to five feet deep and as high as six feet above it. They settle down in this grass until they cannot be seen, but a thrown stick causes numbers to take flight. Several million birds would be a conservative estimate, the most numerous being Redwinged Blackbirds; then, in order, Starlings, Bronzed Grackles, Cowbirds and a few thousand Robins. Ducks were not numerous, but Blue-winged Teal, Baldpate, Mallard, Gadwall, Black Duck and Wood Duck were noted. Also Coot, Pied-billed Grebe, Cormorant, Ring-billed Gull, two Solitary Sandpipers and a Wilson's Snipe. The latter was on a dried-up slough in the forest and was constantly probing its bill into the mud for its full length. Out on the open lake, a flock of White-bellied Swallows performed aerial evolutions, keeping closely together at all times. . . . On Oct. 21, the Nashville division, T. O. S., held its Fall Field Day on the Berry Farm, twelve miles northeast of Nashville. Parties roaming the upland meadows, the woods, the Cumberland River bottoms and Indian Lake nearby, rolled up a total of 61 species for the day. Among the interesting birds were American Bittern, 1; Great Blue Heron, 3; Wood Duck, 21 (2 flocks); Tennessee Warbler, 15; Black-throated Green Warbler, 7 (late for these two warblers); Barred Owl, 2; and of hawks, the Red-tailed, 2; Red-shouldered, 1; Cooper's, 2; Marsh, 1; and Duck Hawk, 1. The latter was well seen by the writer and others as it soared about only 200 feet overhead, near the lake. In the dried-up slough nearby, quantities of dead fish had attracted a flock of 70 Black Vultures and a few Turkey Vultures. . . . During the late fall, Robins and Grackles had departed as usual, and up to mid-December had not returned. Starlings have been conspicuously scarce all fall, especially when compared with the large flocks that were present all through last winter. A few thousand are roosting nightly in the cedars near the Murfreesboro Crow roost. The Crows, to the number of several hundred thousand, are roosting in the cedars in the Murfreesboro National Park. . . . The "ancient" Cardinal at my home is a regular caller still at my feeding shelf each morning, and he is usually accompanied by his mate. His plumage this winter is in perfect condition—much better than last year. Two Mockingbirds are also wintering in my yard and roost in the privet hedge, 50 feet from each other. They battle daily, so I presume they are both males.—A. F. GANIER, Nashville.

RADNOR LAKE NOTES: The number of water fowl present on Radnor Lake has been slightly lower this year than last. After a careful survey this fall and early winter, and by comparing the records this season against that of last year, I find that the Mallards have decreased 21 per cent, the Black Duck decreased 15 per cent, the Lesser Scaup decreased 17 per cent, the Coots decreased 55 per cent, and the Ring-necked Ducks have increased 14 per cent. The other water fowl which have been noted on the Lake, in numbers too small to afford a comparison, are Gadwall, Pintail, Green-wing Teal, American Golden-eye, Bufflehead, Hooded Merganser, Loon, Horned Grebe, Pied-bill Grebe, Double-crested Cormorant and American Merganser (Dec. 13). This season the most abundant duck on Radnor Lake has been the Ring-neck. Several hundred ducks can usually be counted here nearly any day in winter.—GEORGE B. WOODRING, Nashville.

WATER TURKEY IN MIDDLE TENNESSEE: In September of the present year, a Water Turkey (*Anhinga anhinga*) was killed near Columbia, on Duck River. It was a young of the year, and has been mounted for our collection by Mr. Sedberry of Thompson Station. This is the first of its kind I have ever seen here, and I understand the first record for this part of the State. I have seen the Double-crested Cormorant in this county and have a mounted specimen. Several Loons have been shot here this Fall on the small lakes.—A. L. WALKER, Columbia.

WOODCOCKS AT CHATTANOOGA: In response to a letter from the editors, I have made numerous inquiries among hunters here and find that very few of these birds have been taken or seen near Chattanooga. One friend, who hunts quail every season, told me that in 1931 he killed a Woodcock near North Chickamauga Creek, which is in Tennessee about seven miles north of Chattanooga. He also states that for five years past he has found two or three each fall, just south of the Tennessee line, near Fort Oglethorpe, Ga., about the edges of a marsh covering several acres. The writer has not as yet been able to locate any.—E. M. WIGHT, Chattanooga.

THE STARLING IN EAST TENNESSEE: In the vicinity of Johnson City, in the late fall of 1933, Starlings in vast numbers sometimes fairly covered whole fields, approximating 25,000 in a single flock. This year, 1934, they are present, but in greatly reduced numbers—a flock of 200 is about the maximum. This is possibly due to the lack of food, which, on account of the great numbers feeding here last year, has been reduced. As the winter closes in on us a flock of these birds is assembling in Holston Valley, but the number is not large. The Starling being highly insectivorous, has doubtless rendered our farmers a great service by devouring the insect life of the fields. The ability of our fields to support this large number of birds perhaps indicates an excessive infestation of insects. Perhaps our agriculture will be considerably aided by the services of the Starling, which by its wonderful ability to reproduce its kind so prolifically, is gleaning our fields of insect life and replacing to some extent those of our native birds which are being thinned out by gunners.—Bruce P. Tyler, Johnson City.

Note: A similar scarcity of Starlings has been noted in Middle Tennessee. During the fall of 1933 and the winter which followed, there were many large flocks present, whereas during the present fall and early winter only a few have been seen.—*Editors.*

RETURN OF THE SNOW GEESE: From *The Migrant* of last December we quote the following: "On the night of Oct. 29th, in Macon Co., a flock of wild geese were circling over the town lights of Red Boiling Springs, when some one shot into them and a number came to the ground including seven apparently uninjured. There were one immature Blue Goose, three Lesser Snow Geese, and three immature apparently of the latter species. The birds were confiscated by State Game Warden Headden and were released in Radnor Lake near Nashville where it is hoped they will remain all winter and return in future years." The primary wing feathers of six of the birds had been cut back by their captors with a knife. These "stubs" were pulled out before releasing in order that the birds would grow new primaries by Spring and this they did. One of the geese however, had had all of its wing feathers on one wing cut back and it was feared to pull so many stubs. As a result, the stubs remained in until the regular moulting period of late summer. The other geese regained their ability to fly by early spring. The three mature birds would fly about, high in the air, calling to their comrades below to join them in their flight to their homeland on Hudson Bay. Toward the last of their stay, these three would leave for hours at a time but would re-join the others at nightfall. The flock of seven were last recorded intact on Radnor on March 28, after which the remaining four settled down to a life of ease upon the eighty-five-acre lake, keeping company with four domestic geese owned by Watchman Baker and sharing their occasional feedings about his feet. There was no evidence of mating or nesting on the part of these geese and it is certain that they did not absent themselves to incubate eggs even if they laid them. Efforts further north to breed these geese in captivity have rarely been successful. Snow Geese and Blue Geese, wounded and captured at Reelfoot Lake in 1927 and now at the lake in Centennial Park in Nashville, have never nested. These birds are pinioned.

During late summer the four geese on Radnor moulted their immature garb and emerged in resplendent plumage. As anticipated, three were Snow Geese wearing immaculate plumage except for black wing tips and the other, a Blue Goose with white head and neck and slaty gray body. It is hoped by local ornithologists that the three which flew north in the spring will return in the autumn and at least make a brief stay enroute to their regular winter home on the Louisiana coast. It is also hoped that they may bring others with them and so establish Radnor Lake as a stopping place enroute for these splendid wild fowls. The distance is great however, and the hazards enroute are many, particularly on their northward trek last spring when the birds were out of practice, so it may be that we will not see them again.

(The above was prepared for our September issue, but was held over. We are now able to add the following.—*Editor.*)

On Oct. 31, 1934, three mature Snow Geese and thirteen adult Blue Geese arrived at Radnor Lake at daybreak. They remained only a few hours, due

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to the fact that some men embarked on the lake in a boat to fish. Watchman Baker states that the three Snow Geese swam from "the point," midway of the lake, over to his house, accompanied by six of the Blue Geese. There they joined the four geese which had remained at the lake during the summer. Three of the four geese joined the newcomers in their flights prior to departure, but because one of the four had a crippled foot and could not fly well, the other three elected to remain. The migratory urge was still strong within them, and their ancestral winter home on the Louisiana gulf coast beckoned, although these four young birdr had never been there. About the middle of November they were getting quite restless and were now flying about above the lake accompanied by the cripple. Ten days later it was noted that they flew out of sight at times, absenting themselves for several hours, and even night flights were being indulged in. On Nov. 29, Thanksgiving Day, Mr. Baker heard them flying about overhead before daybreak, and when he looked over the lake a few hours later he found that they were gone, not to return, and presumably were on their long flight to the coast.

The spring northward flight of these geese lies considerably westward from the Mississippi River, but Nashville bird students will be expecting them to revisit their erstwhile home again about the last week in October, 1935.—*Editors.*

All serious students of bird life should make it a practice to keep written notes. A notebook, kept for this purpose alone, should be kept in one's desk in order that dates, numbers, field lists and interesting occurrences may be set down while fresh in mind. Many of our contributions would have been more valuable had their writers had such a notebook to refer to. Printed 3"x5" bird listing cards may be secured from the Treasurer, at cost, *i. e.*, 50 cents per 100, plus postage. These are exceedingly useful.

Our esteemed contemporary, *The Kentucky Warbler*, closed its tenth volume with the issue of October, 1934. Editor Gordon Wilson of Bowling Green announces that the organ of the K. O. S. will increase its size with the next issue from four to eight pages. We wish them well, and with such energetic officers as Pres. B. C. Bacon of Madisonville, Curator Burt Monroe, and Secretary Miss Mabel Slack of Louisville, we believe a new era is in store for *The Warbler* and the K. O. S.

OFFICERS: State officers of the T. O. S. were given in the June issue of *The Migrant*. Since that time our three divisions have elected their local officers, as follows: Knoxville Division: H. P. Ijams, president; W. M. Walker, vice-president; C. A. Ogden, curator; Mrs. Frank Leonhardt, secretary-treasurer, and Dr. E. B. Powers and John Hay, directors. The Nashville Division elected Dr. H. S. Vaughn, president; H. C. Monk, vice-president; Miss Cynthia Tompkins, secretary, and Geo. B. Woodring, treasurer. The Memphis Division officers are Earl Henry, president; Mrs. Lee D. Jones, vice-president, and Ben B. Coffey, secretary-treasurer. Each division plans as usual to hold meetings bi-weekly as well as a Spring Field Day in May. Each member should endeavor to interest and develop at least one new member for the T. O. S.

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